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Standards

. . . how to find that missing fact — page 358

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Our Cover

The problem of how best to make use of the rising flood of scientific information became the focus of a White House directive early in December. Acting on a report of his Science Advisory Committee, President Eisenhower directed the National Science Foundation to "take the leadership in bringing about effective coordination of the various scientific information activities within the Federal Government."

Another way of helping to solve the problem is suggested in this issue (page 358).

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How to Find That Missing Fact—A Standards Solution.
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. . . . marginal notes

• **During the week of** November 17, more than 900 people from many countries discussed the problem of how to locate the information that scientists and technical people are making available in great amounts every day, and that other scientists and technical people badly need to carry on their work effectively. The discussions were held during the International Conference on Scientific Information at Washington, D. C. "Avalanche proportions" was one term used to describe today's flow of scientific data. Despite its importance, much of this information frequently remains unknown and inaccessible to those who could use it because of the sheer physical impossibility of searching through the great mass of data available. And, it was reported, the problem is getting worse. From now on, the amount of scientific information becoming available is expected to double every ten years.

This is no theoretical problem. It is costing us money. According to reports, industry representatives have estimated they could save $200 million annually in research money if information services could be improved.

There is much talk of using machines as a solution for retrieval of information. But use of machines is in its infancy and many problems remain to be solved. One of these problems is standardization of the indexes and codes used in the machine operation. Foreseeing the probability that development of different indexes and codes might delay effective solution of the retrieval problem, W. H. Offenhauser, writing in this issue (page 358), urges that standard indexing for use in machine retrieval be developed before different systems complicate the field unnecessarily. American Standards Association procedures offer a means of preventing unnecessary confusion before it develops, he believes.

• **The National Conference** on Standards was held in New York, November 18-20. Many different facets of the problem of standardization, and answers to the theme question "What's in it for me?" were presented during the meeting. A summary report of the Conference will be published in the January 1959 issue of THE MAGAZINE OF STANDARDS.

• **The index to Volume 29,** bound separately as Part 2 of this issue, includes the index to all 12 issues published January-December, 1958.

JEAN RAEBURN

This Month's Standards Personality

THEODORE E. VELTFORT is one of the most intelligent and broad-gage association executives in this country today. This is the judgment of his friends and acquaintances in the association field. They point to his capacity for seeing problems on an over-all basis, in terms of the general welfare, and for carrying his association with him in actions of broader significance than that of his industry's interest alone.

A civil engineer with a professional engineer's license in New York State, Mr Veltfort is managing director of the Copper and Brass Research Association. This organization is a combination of a trade association for the brass mill industry, which Mr Veltfort helped to establish in 1933, and the Copper and Brass Research Association, with which it merged in 1940. Mr Veltfort had held the executive staff position in the brass mill industry association from the time it was organized and took over responsibility for the enlarged organization at the time the two were combined. Under his leadership the association has expanded its services to the member companies and grown in activities and prestige.

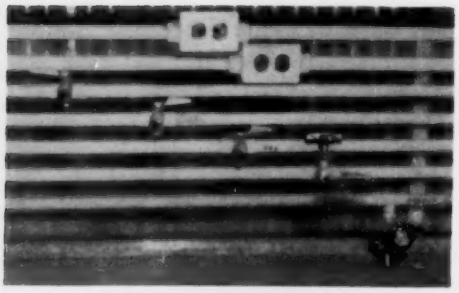
His activities in the trade association movement, in government work, and in standardization indicate Mr Veltfort's broad-gage approach to industry problems. He has helped to build the American Society of Association Executives as an effective organization to upgrade the caliber and improve the professional standing of association executives. He has been a leader in establishing and operating the Northeastern Institute, a conference to help association personnel improve their knowledge of trade association work and their own professional standing.

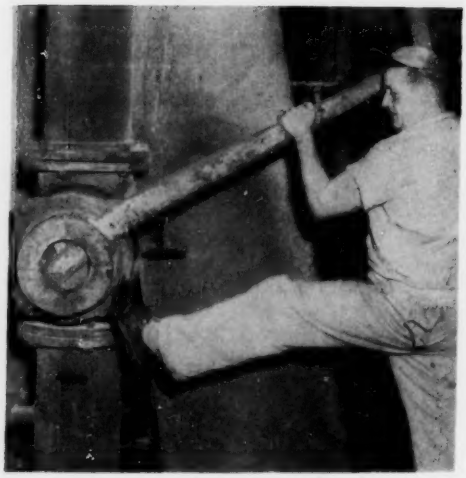
He is a past president of the American Trade Association Executives (now the American Society of Association Executives); past president of the Trade Association Executives, New York City; past chairman of the Manufacturing Trade Group of the National Industrial Council; president of the Northeastern Institute; member of the Business Research Advisory Committee of the Bureau of Labor Statistics; member of the Advisory Committee on Federal Reports organized under the Bureau of the Budget; and a member of the Board of Directors of the Society of Business Advisory Professions.

In standardization, particularly in the work of the American Standards Association, Mr Veltfort has always taken a leading role. He has just been elected to his second term as chairman of ASA's Standards Council. He has represented his association on the Council since 1938. During that time, he has taken an active part in the affairs of ASA as a member and for four years as chairman of the Committee on Procedure, as a member and for three years chairman of the Board of Review, and as a member of a number of special committees to study problems of ASA operations.

Mr Veltfort's many activities on behalf of his association and for the government keep him traveling constantly. However, between trips he finds time to indulge in his favorite sport, swimming, and to cultivate his favorite flowers, roses.

BANK of conduit and pipe installed with standard materials and procedures, showing neat arrangement and compactness of supply lines in laboratory.





THE old and the new — (above) method of opening old plug-type valve. (Right) new standard gear-operated valve.

A PROBLEM yet to be solved—no valve has as yet been found to eliminate the leak.

how to set up A STANDARDS PROGRAM FOR A SMALL COMPANY

ELECTRICAL subcommittee at work. Diamond's Robert C. Sutter (standing), director of engineering and chairman of the company's Main Standards Committee, is shown explaining point of procedure in standards program.

by B. SCOTT LISTON

MR LISTON is secretary of the Standards Committee of the Diamond Alkali Company, Cleveland, Ohio.

A SUCCESSFUL standards program calls for many things, chiefly careful determination, selection, use, and maintenance. Getting started is the first step, obviously, but in making this start there are certain indispensable requisites that merit thoughtful consideration.

Recognition by management of standardization and its important relation to profitable operation is a "must." This positive approach eliminates the usual practice of someone without necessary and sufficient authority attempting to sell the concept of standardization to his superiors.

Basically, the successful determination, selection, and utilization of standards depend upon eight key factors.

1. *Establish and Recognize the Purposes and Intent of Standards.*

In recognizing the purposes and intent of standards within the interested organization, several queries must be answered. For instance, if management can predetermine who will use the standards as tools, it will definitely aid those responsible for the formulation and execution of a standards program. It should be decided whether standards will affect engineering, construction, stockrooms, consulting associates, or others, before the standards are initially drafted. It is helpful to know about the results expected. With these factors established, the subsequent execution of the program is substantially facilitated, as its purposes and objectives become thoroughly understood at the outset.

2. *Assign Working Force to Standards Management and Operation.*

The size of a company should not be considered as an essential element in selecting personnel for standards work. However, organizational demands and requirements will determine to an important degree the size of the standards group.

When the decision is made to give someone responsibility for standards, the standards engineer should be selected on the basis of certain qualifications. Because of his many contacts with plant superintendents, foremen, and others, these five qualifications appear to hold greatest importance:

(1) An abundance of patience for, and understanding of, people who are not standards-conscious.

(2) Interest in the exacting details that are part and parcel of standards, their formulation, establishment, and administration.

(3) Whole-hearted endorsement of the precepts and principles of standards and recognition of opportunities they offer in achievement, both from the operational and self-advancement viewpoints.

(4) The possession of a "questioning mind," as the Standards Engineers Society so aptly puts it.

(5) The ability to "spread yourself thin"—i.e., being available where and when you are needed—often easier said than done.

In the March issue of THE MAGAZINE OF STANDARDS,[1] Leo Moore makes this interesting observation: "The qualities of an effective standards engineer, based on what he has to do, indicate he must be:

"(1) Particularly strong in the ability to handle human relations problems

"(2) A good engineer versed in the technical and productive problems of his company

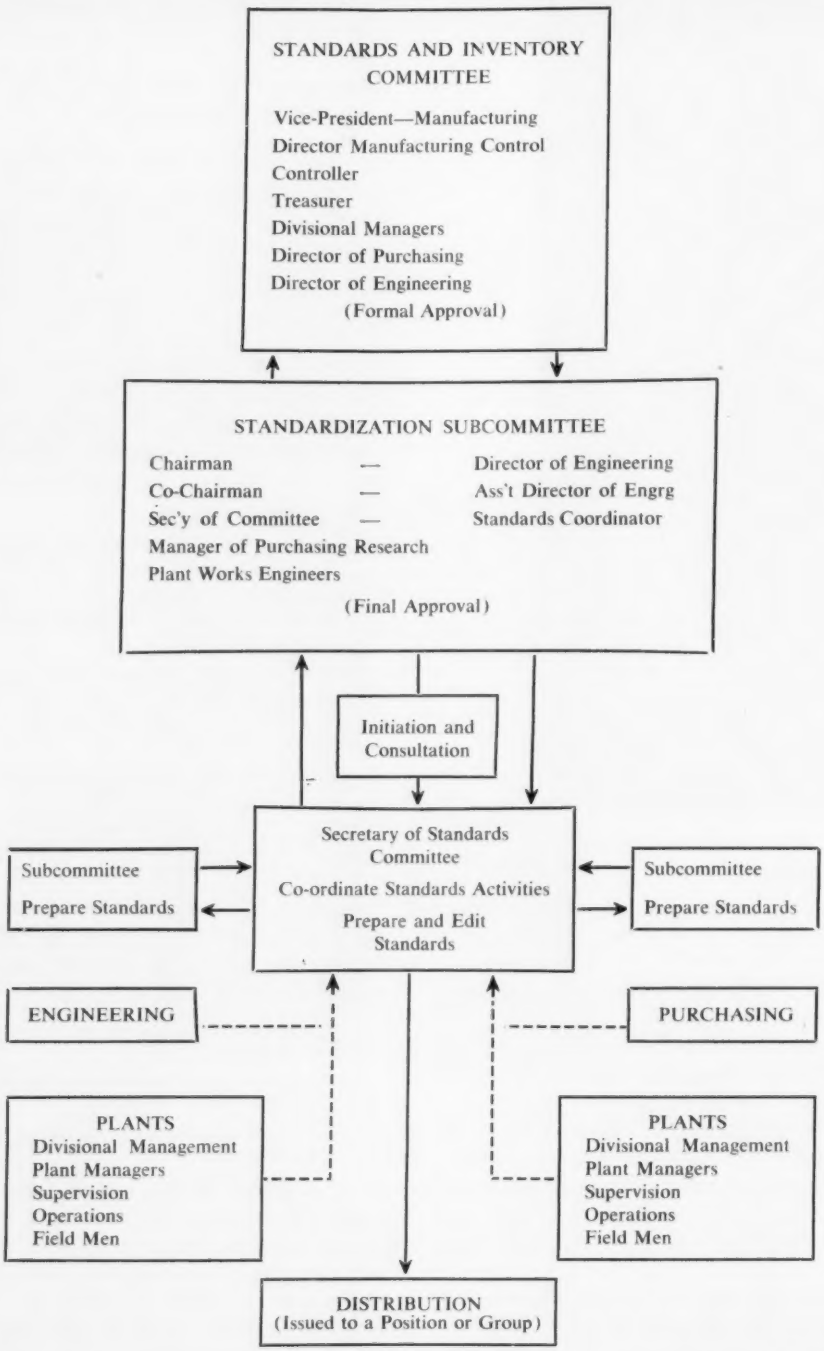
"(3) An able administrator, capable of making competent business decisions."

As indicated at the outset, this working group, whether it be one man or more, must have the full support of company management. Also, the group should take an active, positive role in coordinating information obtained from various sources, always making certain, however, to keep in mind the many opinions and side issues which may develop.

After information is condensed into a reasonable standard, a previously appointed committee possessing proper authority should approve the proposed standard or review the recommendation for further consideration with an eye toward effecting additional improvements. Committee membership should consist of participants from different plant locations, or in the case of a smaller organization within a single plant, by area of operation.

[1] Standards Outlook, March 1958, page 83.

STANDARDS DEVELOPMENT CHART



3. *Select Suitable Classifications.*

In the next step, an identification or index system is needed. Accordingly, classifications of materials are first selected. The prime function of standards, after all, is to have information available to promote the proper use of materials at minimum dollar expenditures.

Proper classifications, therefore, are important. They should be divided into such groups as architectural or building standards, electrical standards, painting standards, and so on. This arrangement should be sufficiently broad to cover areas considered eligible for future standardization.

These classifications can be expanded or deleted any time, thereby keeping the system flexible. Some research is necessary to determine usable classifications. To accomplish this, effective liaison between various groups in plant production, engineering, and the purchasing department is essential.

4. *Determine Specific Kinds of Standards Needed.*

Selecting types of standards is important for subdividing the classifications. For instance, does the solution to a design problem offer greater potential benefit than the requisitioning of a unit of equipment to fit the design, or vice versa? Obviously, both are vital requirements; but each is an individual problem and should be handled separately as such.

Frequently, these operations are handled by more than one person or department. Selection and indexing of the types of standards are important. Standard materials, material applications, design standards, procedures, and construction and maintenance methods are indicative of such types. It is easy to determine these by deciding who will use them.

We will explain the further significance of both classifications and types of standards later in discussing means of identification by numbering.

5. *Pick Proper Tools to Do Job Required.*

Items needed to develop, select, use, and maintain standards include:

(a) A standards form with suitable type (typewritten, IBM, printed, etc).

(b) Suitable book binder.

(c) Proper file cabinets for records, and space for original standard books, extra standards, and miscellaneous supplies.

(d) A good reference library.

(e) Equipment for reproduction of material.

(f) Storage space for maintaining originals or masters.

6. *Devise Adequate Distribution System.*

After printing and collating materials that make up standards, distribution follows. One way that has worked out well in practice is to assign the book to a position rather than an individual. His name is important to know, of course, but transfers and promotions cause difficulty in keeping distribution records up to the minute. Standards books also should be audited at least once annually with the book content subject to careful examination for comparison with a master, up-to-date book.

7. *Enforce Standards.*

How do we propose to enforce standards? This question is a common one. Following experience and precedence, standards should never be mandatory. But they can be enforced. In terms of standardization, enforcing standards means to cause or bring about their use. The first, and not always the easier way, is this: While standards are being prepared, seek the opinions and experience of those in key positions. The age of a company has much to do with this philosophy. The "old guard" sometimes are those who have kept the machinery going against tremendous odds, and to bring them into the standards program is invaluable. "Go see Joe. He knows the answer," is still an acceptable standard to many in operations. If this be true, Joe obviously is a mighty good member to have on the team.

The problem of "enforcing" or having standards used is best solved by providing them at key control positions or "stations" within an organization. Communications with a sincere ring of helpfulness promote adoption of standards also.

Some of these key control positions are as follows: Engineering departments; bills of materials; storeroom stocks; purchasing; comparison of requisitions with standard material lists; and construction departments.

8. *Revise Standards Periodically and Keep Them Up to Date.*

Quite frequently, even while a standard is being processed or is being approved, it is subject to revision. Therefore, it is important that all standards be subject to review for revision and up-dating. As a case in point, the standards experience of one company shows that their standards group occupies two-thirds of their time in revising standards. The remainder they devote to creating new standards and to handling miscellaneous odd responsibilities that go with make-up, distribution, and similar activities.

DEVELOPING STANDARDS

It will be noted that up to this point we have been concerned with setting up a standards organization. Now, we should prepare actual standards.

Methods of preparing standards vary widely from one organization to another. In the introduction to our standards book, we include the following procedures for initiating and preparing standards.

SCOPE

Standards apply to all plants or departments, and are a company-wide service. Problems of exclusive interest to a plant or department are handled individually.

INITIATION OF STANDARDS

Initiation of standards is the responsibility of anyone concerned with the "purposes of standards." Concepts, ideas, and improvements for standards are initiated upon request of any individual in the field—in operating departments, engineering and purchasing departments, the Standards Committee, or management, through the secretary of the Standards Committee.

Standards are developed by a subcommittee responsible for a particular area. The chairman of this subcommittee is responsible to the secretary of the Standards Committee for developing data and creating standards with his particular subcommittee.

PREPARATION AND APPROVAL OF STANDARDS

Once the secretary of the Standards Committee has received a request or initiation for a standard, it is presented to the proper subcommittee to prepare into a standard. When this subcommittee has given its tentative approval, the drafted standard is submitted to the secretary, who presents it to the Standards Committee and to the Standards and Inventory Committee for final approval. When these committees approve, it is signed by the director of engineering (chairman of the Stand-

ards Committee). The secretary of the Standards Committee is responsible for issuing and distributing all standards.

IDENTIFICATION

To be successful, standards should be kept simple. They should be as brief as possible, yet tell a complete story. Ease of locating a standard in the books is equally important.

Returning to the introduction of our standards book, we explain the numbering system of our standards thus:

I Classifications

Because standards in the Standards Books are concerned primarily with materials, they have been separated into main Classifications as follows: (Most standards can be created within these classifications; however, other classifications can be added if necessary.)

A Building and Structural

B Electrical

C Piping, Valves, and Fittings

D Protective Coatings

E Insulation

F Prime Movers and Mechanical Drives

G Process Control and Instrumentation

H Fluid-Gaseous Material Movement

J Dry or Solid Material Movement

K Storage Equipment

L Process Equipment

M Service Equipment

N Container and Shipping

P Lubricants and Fuels

R Physical Properties or Raw Materials, Intermediates, and Products

II Types of Standards

Wherever necessary or advisable, each of the main classifications (A-Building and Structural, B-Electrical, etc) is divided into the following five subdivisions:

A Material Listings (Identified by a pink index tab in the book)

B Material Used (Amber index tab)

C Design Standards (Green index tab)

D Maintenance Methods (Purple index tab)

E Procedures (Light blue index tab)

Information applying to each of these types of standards is as follows:

A Standards—Material Listings. Material Listings Standards consist of the following information primarily for purchasing: Lists of standard materials (items), their equivalents, and suppliers which fall in the proper classification.

Some of the listings contain material specifications and answer questions similar to the following: What ranges are standard? What accuracy is the equipment to provide? How is the equipment to be assembled? What ASA, ASTM, and other national and international standards meet these requirements?

B Standards—Material Used. Material Used Standards specify what material is to be used in a particular type of service.

C Standards—Design Standards. Design Standards are subdivided into the following parts: 1—Acceptable Symbols and Abbreviations, 2—Standard Drawings, 3—Design Calculations, 4—Charts and Tables, 5—Design Forms, and 6—Material Estimating Requirements.

D Standards—Maintenance Methods. Maintenance Methods usually consist of sketches, or written instructions depicting the proven method of doing oft-repeated jobs related to plant maintenance and minor construction. Such items as how to repair a damaged roof, or make a temporary pipe connection, and so on, fall under this category.

E Standards—Procedures. Procedures Standards are specific instructions on how to apply materials, such as welding, protective coatings, and insulation.

The above five types of standards, identified in the standards book by colored tabs, are placed behind each classification with the correct material assembled beneath the tabs where necessary.

III Assignment of a Standard Number

For location and further identification, it is important to know how a standard is numbered. This is our method. The number assigned to a standard is a combination consisting of two letters and the required sequence of numbers, usually three.

The first letter indicates the classification, the second, the type of standard. The first number is an item subdivision of the classification, the second indicates the specific subdivision item, or function of area or item. The third number is a serial number. Here, for example, is a sample of a number:

CB2-3.2

C = Piping, valves and fittings (classification)
B = Material Used (type of standard)
-3 = Sulfuric (subdivision of item)
.2 = 78 to 98% (serial number)

Simplicity is one of the keys to good standardization. As you can see, we have made every effort to keep our system simple, yet it is broad enough to identify many particular areas of standardization. Our numbering system has been further simplified by the creation of a master index. From this, as a standard is processed, it is assigned the correct number.

In summary, it can be said that a standards program set up on the eight-pronged basis we have examined can contribute importantly toward affecting operational economies and improved processing efficiencies. These, in turn, spell greater profits.

by H. H. WATSON

ASA APPROVES

RESIDENTIAL WIRING REQUIREMENTS

THE RESIDENTIAL WIRING HANDBOOK, edited by the Industry Committee on Interior Wiring Design, has been approved by the American Standards Association as American Standard C91.1-1958. To comply with ASA terminology, the standard will be retitled "American Standard Requirements for Residential Wiring, C91.1-1958." The Residential Wiring Handbook, or regional derivatives of it, is best known as the standard used by 130 agencies affiliated with the National Wiring Bureau for purposes of certifying the adequacy of the interior wiring system of residences. Beyond this use it is a standard reference for residential wiring used by government agencies, trade associations, lending and mortgage organizations, industry groups, educational groups, and by individual manufacturers, vendors of electrical materials, architects, and electrical contractors.

The American Standard Requirements for Residential Wiring prescribe the location, rating, and quantity of electrical circuits and outlets required for the efficient and convenient use of electrical equipment in a residence, including lighting. It is not intended as an instruction book on how to install wiring but rather is a set of standards for planning the wiring installation. Specific locations are given for switching, convenience outlets, special-purpose outlets, and outlets for lighting. The particular requirements for each individual type of room and for such areas as entrances, stairways, utility spaces, halls, attics, and the like are listed. Both requirements and recommendations are included, with necessary optional choices indicated where more than a single arrangement is available.

Typical individual room plans are included for illustrative purposes.

The standard assumes that all applicable requirements of the National Electrical Code, American Standard C1-1956, will be met. The code is concerned with safety to people and property from hazards of shock and fire and includes minimum requirements of capacity, number of circuits, and outlets. These minimum requirements will result in a safe installation but, if only the bare minimum is installed, the resulting electrical system cannot be expected to meet the basic needs of electrical use. The new standard therefore is a complement to the code in delineating the amount of electrical wiring to be installed. The resulting installation will be in compliance with the construction requirements of the National Electrical Code but will exceed the code minimums that have been set up for safety only.

A single detail will serve to illustrate the relative functions of the two documents. The code, C1-1956, for example, does not require that a residence wired for electricity be provided with fixtures or other lighting outlets; it merely sets up the safety requirements which must be met where lights are installed. The new standard, C91.1-1958, requires lighting outlets and further delineates the methods to be used for switching the lighting means.

The present issue is a fourth printing of the third edition. Nearly 500,000 copies of this third edition have been printed and distributed. A fourth revision is now in process. This revision has been made imperative by the rapid increase in the use of air conditioning in residences and the ever-increasing use of electric heat. The Industry Committee on Interior Wiring Design has broad representation in the industry adequate to satisfy the American Standard requirement for representation by producer, consumer, and general interest.

H. H. WATSON, commercial engineer, Sales Department, Construction Materials Division, General Electric Company, Bridgeport, Conn., is a member of the Industry Committee on Interior Wiring Design which prepared the Residential Wiring Handbook. He is chairman of Sectional Committee C81, Electric Lamp Bases and Holders, and Panel No. 2 of the C1 National Electrical Code, and a member of Panels 8 and 10. He is a member of Sectional Committees C2, National Electrical Safety Code; C6, Rotation, Connections, and Terminal Markings for Electric Power Apparatus; and C73, Attachment Plugs and Receptacles, and the technical advisor to the U. S. National Committee of the International Electrotechnical Commission for IEC Subcommittee 34B, on Lamp Caps and Holders.

how to find that missing

A STANDARDS SOLUTION

by WILLIAM H. OFFENHAUSER, JR

ALL OF US as individuals cherish and save written items ranging from the purely personal to those of professional and business interest. Even for an individual, it is mandatory today that some items, such as tax records, deeds, wills, birth certificates, and licenses, be preserved for definite periods of time specified by law or statute. There are few of us indeed who, at some period or other, have not had that disheartening experience of remembering that an item of interest was in fact in our possession, but, alas, we cannot now produce it.

The problem of record retention for organizations is no different functionally than it is for individuals. It matters little whether the organization is an agency of the Federal Government, the state government, or of local government; it also matters little whether it is a private agency, such as a business, or even whether it is a nonprofit foundation. In the final analysis, some individual probably will wish to examine and study a document in order to prepare a new document which includes information gleaned from the one he has just reviewed.

At the time of Thomas Jefferson, something like 100 volumes represented all the accumulated scientific knowledge. Today, 150 years later, the Library of Congress alone has collected 1½ million volumes so far, and the present world output per year is estimated at 50,000 volumes with some 2 million articles. In view of this, it is not hard to realize that a single individual in Thomas Jefferson's days could read and digest the world's literature in science, whereas today this is completely impossible. There are far too many words in today's collection of books to be read by a single individual in a single lifetime.[1]

We may accept the dictum that the maturity of a cultural age can be judged quickly by the volume of recorded material purposefully preserved for a future time. If we do, it becomes preposterous that because we have accumulated so much data in the form of books, reports, technical papers, and the like, it is already impossible for an individual to thread his way intellectually through the welter to locate the items of interest he wants in a specific area. He may know that the data he seeks must be in file; all the evidence suggests what has gone before, and what has occurred since. Yet, he can't dig out the specific item of interest. In less erudite language, this is plainly a case of bad housekeeping. At present, even our nomenclature now recognizes such failure by a bit of semantics that distinguishes between "availability" and "accessibility." "Availability" is defined by the statement: "We probably signed for the document and are therefore responsible for its safe-keeping, but please don't embarrass us by asking for it—confidentially, we can't find the darned thing. And, let us assure you, despite this temporary lapse, the document really *is* safe." "Accessibility" is defined by "You may ask the librarian for it—he'll give it to you when you ask for it."

As a matter of old-fashioned logic, "absence of retrieval" is precisely the same phenomenon that occurs when you as an individual put an item away in a very safe place, and can't find it when you need it. When, by chance, you run across that missing item some time later (usually after your need for it has passed by) you are often able to reconstruct your thought processes, probably because of certain unique characteristics of the physical appearance of the item, to the point where you

[1]Data from Mumford, L. Quincy, Statement of Librarian of Congress, Science and Technology Act of 1958, Part 2, Government Printing Office, Washington, D. C., 1958, page 367.

fact

MR OFFENHAUSER, THE MAGAZINE OF STANDARDS' *Personality of the Month in June 1956, is a scientist of many talents. He was awarded the U. S. Navy Bureau of Ordnance Research and Development Certificate for his work in the section on the proximity fuse, fire control, and the jet-powered missile during World War II, as well as the American War Standards Certificate for his contributions to the ASA Z52 War Committee on Photography and Cinematography. As author of a manual on 16-mm Sound Motion Pictures and co-author of a book on microfilm, he is well acquainted with the problems of information retrieval. He writes here as an individual scientist concerned both with the problem of making scientific information available without waste of time and effort, and as a scientist who knows and respects American Standards and the procedures of the American Standards Association.*

can then declare: "I remember now why I put it in *that* cubby hole. It was because—." But until the missing item is rediscovered, the thought process by which it had been assigned to that specific cubby hole is completely lost because of the disappearance of an essential link in the memory chain. For practical purposes, the item might never have existed at all.

It may have been quite reasonable in Jefferson's time to have expected an informed and educated man to have considerable familiarity with the contents of 100 volumes of natural science in his own home library. It is quite unreasonable to expect a similar man to be equally familiar with and to remember a proportionate amount of significant detail per volume in the 1½ million science volumes today. Certainly, there is no one of us who can reasonably hope to have a home that includes a library with so many volumes under his own roof. Obviously, there is real need for a centralized depository or depositories, and equally obviously, such depositories are valueless unless retrieval is accomplished when, where, and as needed. In such a depository it is necessary to provide aid in locating the correct volume, the correct chapter, the correct page, and possibly even the correct lines on that page for each and every reference to our subject of interest. In only that manner can the references of interest satisfactorily be exhumed from the welter within which they are presently obscured or even buried.

Now that the Age of the Computer has arrived, it would seem the better part of wisdom to take advantage of the computer's ability to perform, both accurately and rapidly, repetitive tasks, such as the storage of memory data and its retrieval upon command. We would thus reserve the task of thinking for those who are to utilize the results of such machine "labors." In the words of Dr Walter J. Albersheim of the Bell Telephone Laboratories: "A machine *per se* has no cleverness—it can do only what has been built into it by its designers. Purposefulness is not the machine's own; its memory, observation, conclusions, decisions, and even its learning result only from the blind execution of a built-in fixed program."[2]

[2]Extract from "Can Machines Think," an unpublished memorandum by Dr Walter J. Albersheim, Bell Telephone Laboratories, Inc, Whippany, N. J.

In utilizing the computer for machine search, we should expect no less than we do of the Perfect File Clerk. The latter is rapid and accurate, never becomes tired, never forgets, never fails to deliver upon command every germane item that was ever filed, and never delivers a single item that is not germane. He needs to be told only once to distinguish between a venetian blind and a blind Venetian; once the distinction has been made, it is never forgotten, and it is never necessary to tell him the same thing twice.

We should expect far more in machine search. We should not plan merely to use the machine to do badly in the future what people have done badly in the past. We should relieve people of the drudgery and tedium of repetitive operations, permitting them to concentrate upon the substance of the data they are encoding. We should abolish old-fashioned library procedures of indexing that paid more attention to titles than to content. We should challenge the machines with tasks never dreamed of before.

Since the function of the encoder is to provide readout from the machine when, where, and as needed, it is doubly preposterous to suggest that the groaning pile of data makes it impossible to thread our way intellectually through the welter already accumulated.

When during World War II it was necessary to attempt to locate all the pertinent references in a matter under study, it was a source of real chagrin to determine that it was impossible to locate a report of interest produced earlier within one's own facility. Then, as is often done now, with time so precious, an administrative decision was made to do the job all over again rather than to try to locate the missing report. The repeat job was considered justified by the fact that it is cheaper to duplicate a job because all factors are under the facility's control. As a matter of mathematical probability, the repeat job, it was figured, would be simpler and quicker than the search job. It is from such poignant experiences that dedicated individuals obtain their burning desire to solve the problems of machine search and retrieval. A survey of persons now active in seeking to determine the sources of their motivations might be most enlightening to administrators concerned with information handling, making the task of search and retrieval a far more intriguing one.

(*continued*)

how to find that missing fact

A STANDARDS SOLUTION

From World War II right up to and including the present, work is being duplicated again and again, and far too many precious and irrecoverable manhours of our very best minds are being completely wasted because of a correctible fault in our housekeeping of scientific information. As a research investigator myself, I can assure you that I know of no more effective way to kill research initiative, making it as extinct as the dodo, than to be compelled to go over old ground that someone else has almost certainly covered, with nothing new to be discovered. There is such serious need right now to seek new frontiers in basic research that, from the larger view, administrative decisions to do the job all over again are entirely unjustified and should be unthinkable.

The problem of handling current reports was forcibly brought to public attention by the ascent of Sputnik I into our skies. Despite the certain knowledge that preliminary testing of space vehicles for Soviet participation in the International Geophysical Year was extremely probable, the presence of Sputnik I in orbit still came as a real surprise. We now know that Soviet data on the Sputniks, in Russian, were located at the Library of Congress and elsewhere, although for whatever reason they had not been distributed to all interested persons within the United States. At present, something like 60 percent of the current Soviet publications in the natural sciences and 40 percent of those in technology are received by the Library of Congress. As a matter of hindsight, certainly out of such a volume of data it should be possible for informed individuals to piece together the essentials and to determine just what "holes" remain to be filled in the information pattern. From that point onward, the job of filling them would be straightforward.

The Center of Documentation and Communication Research of Western Reserve University at Cleveland brought together three meetings (January 1956, April 1957, and February 1958) to deal with the problems of information search. The proceedings of all three meetings have been published and have added importantly to the literature dealing with the search and retrieval problems. One outgrowth was the formation of the Council on Documentation Research, a voluntary group to promote understanding and cooperation among those who produce, organize, and use recorded knowledge of all types and in all fields. A result of action taken at the February 1958 meeting was to present to the National Academy of Sciences-National Research Council a report of the meeting together with a petition that "the NAS-NRC appoint an *ad hoc* committee to study these problems and proceed as rapidly as possible with the development of a program which can gain national support through the governmental auspices, scientific and technical societies, academic institutions, and industrial organizations."[3]

With some 70 percent of current American research paid for directly or indirectly with tax dollars, it is no surprise to find governmental agencies, such as Office of Ordnance Research, U. S. Army, United States Patent Office, and National Science Foundation, among those participating directly in the February 1958 meetings at Western Research University with technical societies, such as the American Council of Learned Societies, along with the American Petroleum Institute, American Society of Civil Engineers, American Institute of Electrical Engineers, American Society of Mechanical Engineers, American Society of Tool Engineers. The full list of the Council's members bears much resemblance to the present membership of the American Standards Association. It includes industrials such as Union Carbide, Lockheed Aircraft, Esso Research and Engineering Company, Socony Mobil Oil Company, and a host of others. And since research of an important kind is also accomplished at universities, as well as in government laboratories, private laboratories, and corporation laboratories, Case Institute of Technology, Western Reserve University, Lehigh University, Massachusetts Institute of Technology, and others also took part in the discussion. This led to the resolution to petition the National Academy of Sciences-National Research Council to act. NAS-NRC in the past have not been much concerned in a direct way with the standardization activities of the American Standards Association; undoubtedly their interest will rise materially in the future.

The petition to NAS-NRC and the related activities that were carried on concurrently have resulted in hearings before a subcommittee of the Committee on Government Operations, United States Senate, Eighty-Fifth Congress, Second Session, under the title "Science and Technology Act of 1958." Reduced to simple language, one of the purposes of the Act is to promote the effective utilization of computers for the purpose of reducing to a minimum the repetitive processes that must be carried out by a person seeking data from a centralized data storage facility. A review of the recent literature reveals that the key to the success of such a process is the coding and indexing of the information required to produce readout by the computer. If the coding has been well done, the information seeker

[3]Shera, Jesse H.; Kent, Allen; Perry, James W., A Challenge to American Science and Industry, Information Resources, Western Reserve University, Cleveland, Ohio, 1958, p. 212.

will obtain the information he desires. He will have obtained it *by asking the right questions* of the machine —those that obtain readout.

In coding information for insertion into the machine, the encoder has automatically limited the manner in which the information so encoded can be read out by the machine. To accomplish readout, the information seeker must phrase his question in such a manner that the machine "understands" his question. In a broad sense, coding provides the discrete multiple paths within the machine by which the information inserted into the machine can be retrieved by search by an information seeker. Coding therefore involves a permissible but limited range of questions about the information so coded.

In a practical structure, 100-percent retrieval is never anticipated because theoretically such a machine would be almost infinitely large and extremely costly to buy and to operate. Anything less than 100-percent retrieval for 100 percent of the seekers implies selection, and selection demands standards. Practices dictated by proprietary and like considerations such as those presently used are not standards. In a practical machine, access is at present limited in some known but undefined manner to bring the cost of the machine to the point where it can be successfully marketed. In the mutual interest of all concerned, such should be defined in an American Standard.

Limited access always occurs, especially in a newly purchased machine. When a machine is enlarged to increase its capacity, it is customary to furnish new access paths to previously recorded data in addition to encoding completely new data. Such new paths to previously recorded data increase the permissible range of questions which affect readout of the required data by the machine. In practice, such new access paths are often determined by logging the failures of the machine to provide readout and their causes. The new paths chosen are selected as most desirable from among those so logged; the number of new paths chosen must, of course, be within the added capacity of the machine. In effect, therefore, an initial installation of a computer for this purpose is a first approximation to the desired solution whose complete solution is not fully known. Subsequent increases in the machine's capacity should be in the nature of more accurate approximations to the exact solution—the second, third, fourth, and so on as each new addition is made.

Unfortunately for the user-buyer of computers, this idealized state of affairs is only partly true because different manufacturers have different ideas on how coding and indexing is to be accomplished with their equipment. To a degree, such ideas result from proprietary considerations such as patents, for example. For that reason, among others, a purchaser of a computer automatically is forced to adopt a philosophy of coding and indexing peculiar to that specific equipment when he purchases a specific make and model. He has thus barred himself automatically from the use of certain coding and indexing methods that may be well suited to his application but are not compatible with the hardware that he has purchased. Like color television of a few years ago, the coding and indexing systems at present commercially available are for the most part mutually incompatible. The need for a national standard coding and indexing system is silently staring at us, demanding the same kind of cooperative approach that resulted in success in that undertaking. The development of such a standard can only be confidently undertaken under the auspices of the American Standards Association.

No matter what the system of recording and storing, data must be indexed to facilitate search. Certainly the biggest need right now is to determine just what the standard for coding and indexing will be. It will be only through the development of such a standard or group of standards that suitable and adequate interchangeability of materials and methods can be achieved to reach the point already attained, for example, by cameras and film in use throughout the world. Today we think nothing of using a Japanese lens in a German camera with color film made in the USA and developed in England. And if you swap about your geography, the results are still excellent —if the standards are. They usually are.

At present, the economic waste resulting from lack of a suitable American Standard for coding and indexing is largely due to the energetic exploitation of the commercial markets by many lively, knowledgeable, and well-financed competitive organizations already in the field and soon to enter it. As a result, a user soon feels that the manufacturer of his equipment, whoever he may be, has designed the equivalent of an automobile engine which requires an octagonal piston for Brand A and a pentagonal piston for Brand B—when *both* pistons could be replaced by a single design of conventional cylindrical form. Here again it seems we have another story about a seven-sided post hole—with both problem and solution amenable to the procedures of the American Standards Association.

It would seem that the time has now arrived for the American Standards Association to invite all concerned to attend a conference on an American Standard system of coding and indexing.[4] Not the least among the groups invited should be those who produce or pay for 70 percent of the research accomplished in the United States—the Federal Government, as represented by those branches that obligate the funds and take delivery of the product when the funds are disbursed. Especially to be included would be the Department of Defense, since today it is an important factor in piling up new and useful data that we are finding so difficult to extricate from the pile being produced all over the world.

[4]Editor's Note: The procedures of the American Standards Association require that before a conference is called to consider a project, the project must be requested by a national trade association, a group of companies, or a technical or professional society that has an interest in the field of the proposed project.

DRAFTING STANDARD ON PLASTICS AIDS DESIGNERS

This new standard is one of nineteen sections of the American Drafting Standards Manual, which, when completed, will provide the means for uniform drafting practices throughout the United States and most other English-speaking countries.

by H. E. MINNEMAN

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SECTION 11 ON PLASTICS[1] of the American Drafting Standards Manual is one of the "tools" being made available to designers and draftsmen in the product drafting departments of American industries and designing agencies, as well as to engineering colleges and drafting schools which teach mechanical drafting and design.

Because it contains the recommended practices of many molders and fabricators of plastic parts and assemblies, the section should prove invaluable in effecting a design which is producible from a manufacturing standpoint at lowest possible cost.

Section 11 contains the type of information that is required during development of the details of a design and during preparation of the component or assembly drawings where plastic materials are involved. It should answer basic questions for those who are not too familiar with plastics and their forming processes. It can be helpful to the draftsman in his contact with the material, process, and production engineers when specific problems arise and more complete information is needed in the finalizing of a design. It may reduce the number of changes in the drawings which are often required due to molding and assembly problems that are encountered in first production components and assemblies.

Mechanical drawings from which prints and reproducible copies can be obtained are recognized as the basic and most economical method of transmitting and

[1]American Standard Y14.11-1958, approved by the American Standards Association and published by The American Society of Mechanical Engineers. Available from ASA or ASME. $1.50. In addition to Y14.11-1958 (Section 11), Sections 1 through 7 have been published. The other sections are still in preparation.

controlling engineering design in a manufacturing or fabricating organization or a designing agency. Since most end products or assemblies involve sub-assemblies and separate parts, many details of design are left to the draftsmen who prepare the drawings. The section on plastics should be most helpful in this area as it points out some of the manufacturing considerations and limitations when processing plastic materials into a finished or semi-finished component or assembly. Many design hints and assembly considerations have been incorporated in the section as they apply to plastic components that are formed by hot molding. The data in the section have been grouped and supplemented with fifty illustrations which should improve its effectiveness as a reference book to the designer and draftsman.

It should be noted that the section on plastics does not include the fundamental principles of drafting, such as lettering, sectioning, placement of views, dimensioning, etc, which are covered in other sections of the American Drafting Standards Manual and are applicable to any part drawing regardless of the material used and the basic method of forming the part, whether it be by plastic molding, casting, die casting, forging, machining, or metal stamping.

Although no attempt is made to cover over-all product design in Section 11, certain factors that are considered in the layout and development of an end product or assembly generally have an influence in the design details of its sub-assemblies and separate pieces. Some of the factors which affect components formed of plastic materials are as follows:

A. What are the functional requirements of the component? Does it serve as a heat insulator, an electrical insulator, or both? Must it have a pleasing shape? Must it have a good feel when grasped?

B. What are the conditions to which the component will be subjected during its normal operation? Will it be exposed to extreme temperatures, water, chemicals, dust, etc?

C. What are the maintenance and servicing requirements? Will disassembly be required?

D. What kind of plastic material will be used? Is it a thermosetting or thermoplastic type?

E. What methods of fastening or holding the parts together in an assembly are to be used?

F. Will the component or assembly be purchased or made within the company? Will it be purchased in a finished or semi-finished state?

G. What basic form should the material take for most economical manufacture? Should the component be molded, made from an extruded shaped stock or from sheet stock?

H. What equipment and tools or molds are available to form and finish the component or assembly? Can existing equipment and molds be modified to make the component?

I. What tolerances must be held in the separate pieces and assemblies?

Information on some of these factors is included in the section on plastics. It should prove useful to the draftsman in completing a design and its supporting drawings.

A summary of the information contained in Section 11 on plastics follows:

(1) A brief description of the differences between thermosetting and thermoplastic materials.

(2) The methods used in specifying plastic materials on drawings.

(3) A brief description of the more common forming processes, such as compression molding, transfer molding, injection molding, casting, extruding, hot forming, and laminating.

(4) Machining operations.

(5) Factors affecting molded part details.

(6) Many design hints and drawing notes which apply to parts that are formed by hot molding. These are grouped under the following headings:
Wall and section thickness; Ribs; Bosses; Draft; Taper; Fillets and radii; Flash lines and gates; Holes; Undercuts; Inserts; Threads; Surface quality; Warpage; Tolerances.

(7) The different methods employed to hold molded parts together in assemblies and some considerations pertaining to each. The methods discussed are as follows: Molded-in inserts; Through holes; Screws; Threaded inserts; Molded threads; Shrink fits; Pressed-in inserts; Spring hinges and clips; Stud clips and retainers; Heat forming; Cementing.

(8) Lettering and embossing considerations as they pertain to the following: Raised letters; Depressed letters; Painted letters and designs; Stamped letters and designs; Coated molded letters and designs; Decalcomanias.

(9) Design and drawing hints of parts formed of laminated stock. The hints are grouped as follows: Loading; Holes; Fabricating considerations.

In the development and preparation of the section on plastics, Subcommittee 11 not only utilized the experience of the companies which its members represented but also obtained many ideas from other company and governmental drafting standards on the type of data that would be useful to draftsmen. Some data and design hints were obtained from books and magazine articles that have been written on plastics. Only minor changes were required to the initial draft that was circulated for comment and review to approximately 200 molders and fabricators of plastic parts and assemblies, engineering colleges and drafting schools, industrial associations and institutes, and other organizations designated by The American Society of Mechanical Engineers, sponsor for the American Drafting Standards Manual. No further revision to the section has been required since the final draft was forwarded by the Y14 Executive Committee to the various approving bodies: the Y14 Sectional Committee, The American Society of Mechanical Engineers, and the American Society for Engineering Education, both of whom are sponsors of Committee Y14, and the American Standards Association.

This is the sixteenth installment in the current series of rulings as to whether unusual industrial injury cases are to be counted as "work injuries" under the provisions of American Standard Method of Recording and Measuring Work-Injury Experience, Z16.1-1954. The numbers in parentheses refer to those paragraphs in the standard to which the cases most closely apply. These cases are issued periodically by the Z16 Committee on Interpretations.

Case numbers in the current series start with 400. Cases 400-500 have been reprinted with an index prepared by the National Safety Council. To make it easy to locate all cases applying to any section of the standard, the index is arranged both numerically by paragraph number of the standard and numerically by case number. Each index reference includes a brief description of the case. Reprints are 75 cents per copy, available from ASA.

Sectional Committee Z16 is sponsored by the National Safety Council and the Accident Prevention Department of the Association of Casualty and Surety Companies.

Are These Cases Work Injuries?

CASE 582 (5.2)

An employee was unloading ½-inch pipe from a truck and storing it under the rack for larger pipe. He had 20 feet of ½-inch pipe (weighing approximately 20 lb) in one hand when he stooped over and then turned to the left to line the ½-inch pipe with the rack before pushing it in place. As he turned, he felt a severe pain in his back and could not straighten up. When the pain had not let up after a while, the employee reported to his foreman, and then to a doctor. The doctor diagnosed the condition as a sprained muscle of the back, lumbar region. The employee lost five days from work.

Decision: The committee decided that this back case should be considered a work injury and included in the rates. The members believed that although the pipe which the employee was handling was not heavy, it was long and awkward. The members believed that material such as this pipe placed more strain on the person than was indicated by its weight; moreover, the employee was working in a stooped position and was required to twist his body in order to put the pipe into position. These circumstances constitute an event very likely to result in a back strain, and satisfy the requirement of paragraph 5.2 (a).

CASE 583 (1.2.4)

An employee was walking hurriedly on a smooth and clean, but unwaxed, cement floor when he twisted his right ankle and suffered what at first appeared to be a mild strain. An x-ray was made at this time at the company medical center, and a small fracture of the posterior malleolus of the right ankle was discovered. The medical center decided to apply a walking cast, and informed the injured employee's supervisor that the employee could return to work at once, but he should not be permitted to put weight on the cast for 48 hours while the cast was setting.

Since there was no work available for the employee which did not require standing and walking, he was kept in the medical center for two days while the cast hardened. The company thought that had the medical center been able to furnish a cast which would harden in a few hours, the employee would not have lost any time.

Decision: The committee concluded that this injury should be included in the rates on the basis that it was an accepted injury which required certain treatment. Since the treatment imposed certain limitations upon the employee's physical ability, and since there was no job open and available to him while those physical limitations continued, the members believed that the inability to work at any available job must be considered as being the direct result of the injury.

CASE 584 [A1.6 (h)]

A group of employees was engaged in cleaning an irrigation ditch in a heavily wooded area. During the lunch period one of the employees went for a walk through the woods in search of ferns to take home, while the rest of the employees remained eating their lunch and resting along the trail next to the ditch.

The employee who went to look for ferns walked through the woods, having to make his own trail as the ground was covered with dense growths of plants and brush. While on this search for ferns, he fell into an old abandoned shaft which at one time led to a water tunnel constructed some 40 years previous. The opening of the shaft was completely grown over with weeds.

Decision: The committee decided that the injury to this employee should not be included in the work injury rates. The members believed that the employee had taken himself out of his employment when he left the regular area where the employees ate lunch, and was on a personal pursuit away from the work area when he fell into the abandoned shaft.

CASE 585 (1.6)

An insulator helper was laid off with approximately 300 other employees. Each was told he would receive full pay for the next 11 days; following this, he would receive vacation pay in lieu of vacation, and following this a lay-off allowance.

After receiving his lay-off notice the insulator helper went to his locker to get his clothes. He had done no work on that particular day prior to receiving his notice. In the process of removing his clothes from his locker, the employee attempted to yank down a small mirror which was fastened by a wire. The mirror broke in his hand, cutting the tendon of his right thumb. After first aid treatment at the company medical department, the employee was sent to an outside doctor who placed the man in a hospital for surgery. The employee did not return to work until his day of final processing, several days later.

Decision: The committee concluded that this injury should be included in the work injury rates. The members considered that the removal of the employee's belongings

from his locker was a natural result of a lay-off notice, and was a normal activity in relation to his work; and, therefore, should be considered as arising out of and in the course of employment.

CASE 586 (5.5)

Employee A and co-worker, Employee B, had a history of personal difficulties dating back to a Presidential election five years previous. They had not come to blows, but they had invited each other on several occasions to go out to the gate to get things "settled."

They had not worked regularly on the same shift with each other for some time. Because of the history of their disagreement, Supervision had discussed with each employee their being placed together. Both agreed that their difficulties had been patched over and forgotten and that they could work together.

These two employees worked together in the same building two graveyard shifts. On the third shift a fight occurred. Investigation revealed that Employee A had criticized the manner in which Employee B had cleaned equipment during the two shifts they had worked together, and had also been dissatisfied with having Employee B work with him on the shift. Employee B stated that Employee A had cursed him and had struck at him. He dodged the blow, picked up an iron rod and struck Employee A on the back of the head. Employee A was hospitalized, and the injury was diagnosed as concussion.

Decision: The committee concluded that this injury should not be included in the work injury rates. The members believed that the agitation between Employee A and Employee B was a result of a personal grudge, and was not connected with their employment.

CASE 587 (5.2)

A meter reader jumped off an embankment about five feet high during the course of his work. Later in the day he noticed a pain in his back when stooping down and twisting his back to crawl under a house to read the meter. He did not report this incident to his supervisor because, as he stated several days later, he did not believe at the time that it was bad enough to interfere with his work the following day. However, the following day his wife reported that he would be unable to report for work.

About a week later the company received Employee's First Report Form. However, because of the large size of the company, the proper individuals within the company were still not cognizant of the fact that an injury had been sustained. About this same time the Surgeon's Report was received by the company, and this form stated that the employee had first been treated the day following the injury, and would not be able to return to regular work for probably one week. About two weeks after the incident the employee made a statement that he believed he could have worked the day after his injury had he both been able to see a doctor earlier in the day and also been able to have a route where all the meters were on the outside.

The company questioned whether this injury had to be included in the work injury rates on the basis that no report of the accident was received by them until five days later.

Decision: The committee decided that this should be included in the rates as a temporary total disability. The members pointed out that in this case there was an accepted accident which resulted in a back injury, and the standard neither specifically nor by implication places any reporting time limit upon the report of back injuries.

CASE 588 (1.6)

A park maintenance employee was operating a gasoline-driven lawn edger. The edging operation took place along the concrete curb in one of the major parks, and also happened to be adjacent to a golf course. The employee was hit on the chest below the heart by a golf ball; the blow being so terrific that he lost four days from work.

Decision: The committee decided this case should be included in the work injury rates. The members agreed that the employee was carrying out an assignment, and the golf ball hazard was part of the environment of his employment.

CASE 589 (5.2)

A rigger in a refinery, during his normal course of work, was replacing a valve in a line connecting heat exchangers. After the valve, a 16-inch valve of several hundred pounds weight, had been lifted from the ground and lowered in place by hoisting equipment, the employee was pulling it in line in order that it might be flanged. While in the act of pushing and pulling the valve in order that the flanges could be bolted, the employee felt a sharp pain in his back with severe pain radiating down his left hip. As a result the employee lost several days from work.

The employee had a pre-existing physical deficiency involving the back, wore a back brace, and on several previous occasions had had trouble with his back. The attending physician stated that the man did have a severe lumbar muscle strain, but he was of the opinion that had the man not had a pre-existing condition involved, he would not have suffered the back strain. The question was whether or not there was an "incident" involved.

Decision: The committee decided that this back case should be included in the work injury rates as a temporary total disability. The members believed that pushing and pulling on the heavy valve did constitute an incident and that this was reportable since it resulted in a severe muscle strain.

CASE 590 (5.1)

A carloader supervisor finished lifting a 50-pound drum onto the topmost tier of the boxcar on a Friday afternoon. Since this was the last drum of the top tier, he stepped down from the short stool he was using. Approximately 20-30 seconds afterwards he felt a mild pain in his left groin. mentioned this to his fellow workers and reported it to the nurse on duty in the first aid room. He returned to work, but reported to the nurse again the following Tuesday, and was sent to the doctor who diagnosed the condition as a bilateral inguinal hernia, and recommended surgery.

The company questioned whether there was any evidence of any impact, sudden effort, or fall, or overexertion; and recalled that there was no pain until 30 seconds after the incident, and that the pain was admittedly not severe or acute.

Decision: The committee decided that this hernia should be considered a work injury and included in the work injury rates. The members believed that using a short stool to facilitate lifting a 50-pound drum onto the topmost tier of a boxcar could be overexertion. The words "immediate" and "severe" as used in the standard were relative, and it would seem apparent that a pain which manifested itself within 20 or 30 seconds after the incident, and warranted reporting to the medical department, was of sufficient significance to relate the incident.

CASE 591 [A1.6(h)]

A group of employees was in the locker room eating lunch. The employee in question had finished eating his lunch when a banana peel hit him in the left eye. He suffered an injury to the eye and lost 16 days from work. It was known that a considerable amount of horseplay occurred in the lunchroom, and some of the employees would not eat in the locker room because of the horseplay which went on.

Decision: The committee concluded that this injury should be included in the work injury rates on the basis that the horseplay in this case was a hazard of the work area. The members believed that the nearest example in the standard to this case was in the Appendix, paragraph A1.6(h), Example 1.

FROM OTHER COUNTRIES

Members of the American Standards Association may borrow from the ASA Library copies of any of the following standards recently received from other countries. Orders may also be sent to the country of origin through the ASA office. Titles are given here in English, but documents are in the language of the country from which they were received. An asterisk * indicates that the standard is available in English as well. For the convenience of readers, the standards are listed under their general UDC classifications. In ordering copies of standards, please refer to the number following the title.

621.3 ELECTRICAL ENGINEERING

Canada (CSA)

Construction and test of Christmas tree and other decorative lighting outfits C22.2 No. 37-1958

Construction and test of lampholders having socket screwshells C22.2 No. 43-1958

Construction and test of outdoor and submersible floodlights C22.2 No. 97-1958

China

6 stds for rubber-insulated cables CNS 878/83 C 86/91

Czechoslovakia (CSN)

Instruction for servicing and repair of high voltage circuit breakers up to 35 kv CSN 34 3321

Symbols for designation of the resistance of electronic components to ambient conditions CSN 35 8031

4 stds for incandescent and fluorescent lamp holders, explosion proof type CSN 36 0390/3

Electric thermostats CSN 36 1970

8 stds for joint and outlet boxes of plastic material CSN 37 0110/2,-4/8

Laying of power cables in pipes CSN 38 2153

Selection and laying out of insulated power cables and wires in power plants CSN 38 2161

Finland (SFS)

Diagrams of switch connections in domestic installations C.I. 21

2 stds for joint boxes, metal and of insulating material, for use with metal conduits C.I. 44/45

Solid and stranded conductors for overhead transmission lines C.X. 1

Lampholder of insulating material with thread for a shade carrier ring C.XI. 32

Germany (DNA)

Switchboard signs for power and telecommunication lines DIN 40712

Coil cores for small transformers etc, types M, EJ, L, and UJ, main dimensions DIN 41303

Hungary (MSZH)

3 stds for unsheated and metal sheathed paper insulating conduits MSZ 9851/3-56

Joint boxes for unsheathed and metal sheathed paper insulating conduits MSZ 9860-56

Three-color pocket flash lamp case MSZ 10801-57

Aluminum power cable for cranes, rubber-insulated and sheathed, up to 1 kv MSZ 14549-57

2 stds for rubber insulated parallel power conductors types FV and FVGT, 250 v for elevators MSZ 14578/9-57

Arc furnace for steel melting, general MSZ 20826-57

Electrode furnace, general MSZ 20827-57

Heating element for electric boiler MSZ 20858-57

Electric percolator MSZ 20870

India (ISI)

Tungsten filament general service electric lamps IS:418

Paper-insulated lead-sheathed cables for electricity supply IS:692

Tungsten filament electric lamps for railway rolling stock IS:897

Glossary of terms for secondary cells and batteries IS:1147

Pedestal type electric fans IS:1169

Japan (JISC)

Insulation resistance tester JIS C 1301

Enamelled copper wire JIS C 3202

2 stds for fixed resistors JIS C 6406/7

2 stds for fixed capacitors JIS C 6422/3

4 stds for different fans JIS C 9601/4

Electric washing machines JIS C 9606

Netherlands (HCNN)

Paper-air-insulated underground cable for local telephoning NEN 939

Regulations for lightning conductors NEN 1014

Copper trolley contact wire NEN 2353

Hard round copper wire B and round bronzewire mainly for overhead lines NEN 2354

Specifications for transformers NEN 3184

Poland

Electro-insulating materials, preparation of test pieces PN E-04400

Roumania (CSS)

Ignition cable for motor cars STAS 960-57

Marble boards for 1 to 4 circuits in domestic installations up to 250 v STAS 1569-57

Selenium rectifiers up to 3 kv, 100 amp and 3 kw STAS 3034-57

Rubber insulated, impregnated fabric protected copper wire for 2 to 15 kv service voltage STAS 5647-57

Electric traction motors, d.c. STAS 5679-57

Switzerland (SNV)

Diagrams of different wall outlets and receptacles from 10 amp to 75 amp SNV 24561

3 stds for different industrial plugs and receptacles for 10 amp to 75 amp, 50 and 500 v, with and without earthing contact, types 31 thru 34, 41 thru 44 SNV 24562/4

2 stds for industrial plug-receptacle connectors 10 amp and 15 amp, 50 and 500 v, types 130, 132/4, 141/4 SNV 24567/8

United Kingdom (BSI)

Voltages for high-voltage d.c. transmission systems BS 3026:1958

USSR

Ballasts for fluorescent lamps GOST 8798-58

621.4 INTERNAL COMBUSTION ENGINES

Czechoslovakia (CSN)

12 stds for parts of different types of carburator jets CSN 30 2402, -21/31

Piston rings for Diesel motors CSN 02 7009

United Kingdom (BSI)

Ring gear starters for internal combustion engines BS 3025:1958

621.6 FLUID DISTRIBUTION, STORAGE, CONTAINERS. PIPES. PUMPS

China

28 stds for cast iron pipes and fittings for pressure under 16 kg/cm² CNS 828/55 B 323/50

Czechoslovakia (CSN)

Soft non-metal rings for flanged joints CSN 13 1552

3 stds for round pipes of copper and copper alloys CSN 42 1320, -8710, -12

France (AFNOR)

Flanged valves for petroleum industry: Rules of installation PN M 87-155

India (ISI)

Cast iron rain-water pipes and fittings IS:1230

Israel (SII)

Copper alloys water taps: Blow-off valve S.I. 272*

Netherlands (HCNN)

Lead waste pipes NEN 1348

Poland

25 stds for different screwed pipe fittings PN series M-748

United Kingdom (BSI)

Acid resisting silicon iron pipes and pipe fittings BS 1333:1958

Pressure regulators for use with butane/propane gases: Low pressure regulators for use with butane gas BS 3016:Part 1:1958

621.82 TRANSMISSION SYSTEMS AND PARTS

Japan (JISC)

4 stds for small steel balls and rollers for radial bearings JIS B 1502/5

Extra-small radial ball bearing JIS B 1537

Inspection method for cylindrical ball bearings JIS B 1544

Switzerland (SNV)

Radial rolling bearings, general plan for outside dimensions VSM 15714

Rolling bearing with stop ring, dimensions of stop ring groove VSM 15721

Radial rolling bearings, standard tolerances of taper bore VSM 15731

Radial rolling bearings, load capacity and life VSM 15735

Trust bearings, general plan for outside dimensions VSM 15750

621.882 SCREW FIXING. BOLTS. NUTS. WASHERS

Belgium (IBN)

ISO profile screw thread from 0.25 mm to 300 mm NBN 492

ISO metric screw thread from 6 mm to 52 mm NBN 493

NEWS BRIEFS

• A special award recognizing his services to the radio and television industry was presented to Virgil Graham at the thirtieth anniversary of the Radio Fall Meeting, which he helped to found. The meeting was held at Rochester, N. Y., October 28, 1958. The award was presented to Mr Graham "for his leadership as chairman of the Radio Fall Meeting since its inception 30 years ago, and also for his outstanding contributions in the fields of industry, national, and international standardization."

PLAQUE presented to Virgil Graham at the Thirtieth Radio Fall Meeting in recognition of his contributions to industry standardization.

Mr Graham has been active in developing standards in his industry and in work on national and international standardization in the electrical field for many years. He is vice-chairman of ASA's Electrical Standards Board, and a vice-president and technical advisor of the U. S. National Committee of the International Electrotechnical Commission (IEC). He is secretary of Sectional Committee C60 on Standardization of Electron Tubes and of Sectional Committee C83 on Electronic Components and chairman of IEC Subcommittee 39-2 on semiconductor devices. He also represents the Electronic Industries Association on a number of other sectional committees in the electrical field. Mr Graham is an alternate member of the Nuclear Standards Board of ASA and of ASA's Standards Council.

The Radio Fall Meeting is a joint venture of the Electronic Industries Association and the Institute of Radio Engineers, at which new advancements in electronic products and equipment in the home entertainment field are presented to manufacturers. Each year a plaque is presented to some outstanding person who has contributed in some important way to the development of this type of equipment. This year the Radio Fall Meeting plaque was presented to Marcus A. Acheson "for his contributions in the study of reliability of electron tubes contributing to the over-all reliability of electronic equipment and for his statistical studies in the field of quality control."

• J. Paul Jordan, assistant to the president of Gulton Industries, Inc, Metuchen, N. J., is a new member of the American Standards Association's Standards Council. He has been named by the American Institute of Electrical Engineers as one of its representatives, after having served as alternate during the past year.

Mr Jordan had worked with the Atomic Energy Commission on radiation instrumentation, as section head of the Physical Electronics Section of General Electric's Electronics Laboratory, and as consulting engineer to the entire Electronics Laboratory before joining Gulton Industries in 1958. He has taught courses in oscillator theory, induction heating, and dielectric heating at Union College, as well as a General Electric course in semiconductor theory. He holds six patents and has one pending on devices in the semiconductor induction heating and dielectric heating fields.

He is author of "The ABC's of Electronic Heating," the Electronic Heating Section of the Pender-Del Mar Handbook, and an article on "The ABC's of Germanium," prepared for AIEE, has been put into a film entitled "Germanium, The Magic Metal."

J. Paul Jordan

Mr Jordan is active in both the American Institute of Electrical Engineers and the Institute of Radio Engineers. He has been chairman and organizer of the AIEE Induction and Dielectric Heating Committee; chairman and organizer of the Solid State Devices Committee (and helped to organize the IRE counterpart); vice-chairman of the Electronics Committee; vice-chairman of the Standards Committee; and membership chairman of the Professional Groups on Electronic Devices.

In 1951, Mr Jordan received the General Electric Coffin Award for research in the field of germanium diode products.

• J. L. Menson, Combustion Engineering, Inc; F. W. Reinhart, National Bureau of Standards; S. A. Rosecrans, Westinghouse Electric Corporation; and I. V. Williams, Bell Telephone Laboratories, Inc, were recently named new members of the ASTM's Administrative Committee on Standards. As members of that committee, they represent ASTM on ASA's Materials and Testing Standards Board. The Board was organized in 1954 to facilitate submittal of ASTM standards for approval as American Standards.

• Standards played a part in the construction of the world's largest suspension bridge, the Mackinac Straits Bridge between Mackinaw City and St Ignace, Michigan. The American Society for Testing Materials reports that some 26 ASTM standards were used to specify materials used in the bridge.

• A new committee appointed by the American Society for Testing Materials to study standardization procedures will be headed by Albert T. Goldbeck, retired engineering director of the National Crushed Stone Association. Mr Goldbeck is an honorary member of the Society. The study is being made as part of ASTM's program of long-range planning.

• Dr Robert D. Huntoon has just been appointed to the newly created position of deputy director of the National Bureau of Standards. In this post, he will serve as alternate to the director in external matters, and will exercise day-to-day direction and review of Bureau programs. He will continue to serve as associate director for physics. Dr. Huntoon is a Fellow of the Institute of Radio Engineers and Fellow of the American Physical Society.

• A committee is to be formed for the coordination of mechanical test methods used in international standardization of metals and metal products.

Designated ISO/METESCO (metal testing coordinating committee), the committee is to be established by the International Organization for Standardization. The committee's objective will be to coordinate the mechanical test methods used by the various ISO technical committees which are concerned with international standardization of metals and metal products.

Countries holding the administrative secretariats of these metal and metal products committees of ISO have been invited to participate in the work of ISO/METESCO.

The American Standards Association, U. S. member of ISO, as the secretariat country of ISO Technical Committee 26, Copper and Copper Alloys, and ISO/TC 17, Unification of Boiler Codes, has received an invitation to participate.

Other countries invited are:

United Kingdom, holding the secretariats for ISO/TC 17, Steel; ISO/TC 25, Cast Iron; and ISO/TC 67, Materials and Equipment for the Petroleum Industry.

Switzerland, holding the secretariats for ISO/TC 5, Pipes and Fittings, and ISO/TC 72, Textile Machinery and Accessories.

Belgium, holding the secretariats for ISO/TC 18, Zinc and Zinc Alloys, and ISO/TC 60, Gears.

France, holding the secretariats for ISO/TC 44, Welding, and ISO/TC 79, Light Metals and Their Alloys.

The responsibility of METESCO will be to receive and review all suggested test methods for metals incorporated by ISO technical committees in their draft standards recommendations and to take such action as may be required to effect coordination of such test methods. The details of how this work is to be carried out will be drawn up by the committee during its first official session.

• A national standard for graphical symbols to be used on hydraulic and pneumatic circuit diagrams for fluid power systems has become available. A fluid power system is defined as one that transmits and controls power through use of a liquid or gas within an enclosed circuit.

Approved by the American Standards Association and published by The American Society of Mechanical Engineers, the new American Standard Y32.10-1958, Graphical Symbols for Fluid Power Diagrams, shows basic symbols, describes the principles on which these symbols are based, and illustrates some representative composite results. Composite symbols can be devised for any fluid power component by combining basic symbols.

Only symbols are covered in the standard. Symbols, as understood in the standard, are the lines, letters, and abbreviations which identify the purpose and method of operation of a component represented. Component data are added to symbols when used in circuit diagrams. The manner in which component data are associated with symbols is being standardized in Section 17 of the American Drafting Standards Manual, now in preparation. Where process control instruments are used in conjunction with hydraulic or pneumatic power systems, suitable symbols can be found in Recommended Practice for Flow Plan Symbols, RP.5.1, published by the Instrument Society of America.

Graphical symbols for fluid power diagrams were first developed by the Joint Industry Conference (JIC) for hydraulic and pneumatic equipment and published in 1948. In 1955, a project was authorized under the procedures of the American Standards Association, in Sectional Committee Y32, jointly sponsored by the American Institute of Electrical Engineers and The American Society of Mechanical Engineers. The result is the present publication of American Standard Y32.10-1958.

Copies of American Standard Y32.10-1958, Graphical Smybols for Fluid Power Diagrams, are available at $1.50 each.

• Mrs Anne J. Richter, R. R. Bowker Company, chairman of ASA Z39 sectional committee's subcommittee on indexing, will be chairman of an institute on indexing of periodicals in May 1959. The institute is to be held under the auspices of Columbia University's School of Library Service in New York. It is designed for persons now engaged professionally in indexing or preparing for such positions. It will include an analysis of principles and practices in indexing general and popular magazines, business and technical journals, newspapers, and general indexing services. Experts in indexing each of the four types of periodicals will work with Mrs Richter as session chairmen. A fee of $30 will be charged and membership will be limited to 30 persons.

• The American Standards Association has learned with regret of the death of H. E. Glahn, for many years director of the Danish standards organization. Mr Glahn visited New York at the first meeting of the United Nations Standards Coordinating Committee following World

War II, which led to organization of the International Organization for Standardization. He represented Denmark on the ISO Council from 1951 to 1953 and until his death was a member of the Council's editing committee which advises on the lay-out, printing, and presentation of ISO recommendations.

• The Danish standards association (Dansk Standardiseringsrad) has appointed Mr O. Weincke, as its managing director with Mr J. G. Busck as assistant director. Mr Weincke, who succeeds the late H. E. Glahn, was formerly assistant director and Mr Busck technical secretary.

• American groups concerned are being asked whether they are in favor of development of international recommendations for protective helmets. The helmets referred to are those worn by industrial workers, such as miners, by road users, such as motor cyclists, and by persons engaged in racing (cars or motor cycles). The main purpose of these helmets is to protect the wearer from excessive impact and against abrasion and cuts from sharp objects. The scope of the proposed international work will not include headwear designed to protect personnel against injurious radiation, heat and flame, and toxic chemicals.

The question has been referred to the sponsors of Sectional Committee Z2, Safety Code for the Protection of Heads, Eyes, and Respiratory Organs, by the American Standards Association. ASA is the U. S. member of the International Organization for Standardization. If approved by a sufficient number of member countries, the project will be initiated under the procedures of the International Organization for Standardization.

• The new American Standard Test Methods for Determining the Curl of Photographic Film, PH1.29-1958, provides methods for determining quantitatively the departure from physical flatness of photographic films in sheet, roll, or strip forms prior to exposure and processing. The values obtained may be useful in indicating relative performance of materials in cameras, printers, and other equipment.

The standard assigns numerical values to the curling property for samples of photographic films. In one test method a square sheet of the material is measured; in a second method, covering motion-picture films, the curl across the width of a length of film is measured; and in a third method a small narrow specimen is measured. These measurements may be considered to be quantitative in nature only to the extent that the numerous variables that may be introduced have been controlled and standardized prior to the test.

The methods given in the standard may be applied to processed films, and may be useful to indicate their performance during handling and viewing, as well as in projectors, enlargers, and other equipment. The standard is not intended for use in determining the curl characteristics of films during processing stages, including drying.

American Standard PH1.29-1958 was developed by Sectional Committee PH1 on Photographic Films, Plates, and Papers. Copies are available for 75 cents each.

PUBLISHED STANDARDS NOW AVAILABLE

If your company is a member of the American Standards Association, you are entitled to receive membership service copies of these newly published American Standards. Find out who your ASA contact is in your company. Order your American Standards through him. He will make sure your company receives the membership service to which it is entitled.

ACOUSTICS, VIBRATION AND MECHANICAL SHOCK

Vibrators for Auto Radios, Requirements for, EIA RS-187; ASA C83.20-1958 (Revision of EIA REC-113; ASA C16.16-1949) $1.65

Sponsor: Electronic Industries Association

ELECTRIC AND ELECTRONIC

Fluorescent Lamp Ballasts, Specifications for, C82.1-1958, 2nd Ed. (Revision of C82.1-1958) $0.80

Fluorescent Lamp Ballasts, Methods of Measurement of, C82.2-1958 $1.00

Sponsor: Electrical Standards Board

Ceramic Dielectric Capacitors, Classes 1 and 2, Requirements for, EIA No. RS-198; ASA C83.4-1958 (Revision of EIA REC-107-A; ASA C83.4-1955) $0.80

Sponsor: Electronic Industries Association

GAS-BURNING APPLIANCES

Installation of Domestic Gas Conversion Burners, Requirements for, Z21.8-1958 (Revision of Z21.8-1948) $0.35

Gas Valves, Listing Requirements for, Z21.15-1958 (Revision of Z21.15-1954) $2.00

Sponsor: American Gas Association

MECHANICAL

Leaf Chain, B29.8-1958 $3.00

Sponsors: American Society of Mechanical Engineers; Society of Automotive Engineers

PHOTOGRAPHY

Photographic Roll Paper, Dimensions for, PH1.11-1958 (Revision of PH1.11-1953) $0.35

Sponsor: Photographic Standards Board

Dimensions for Camera Accessory Shoes, PH3.30-1958 $0.35

Photographic Enlargers, Methods for Testing, PH3.31-1958 (Revision of Z38.7.6-1950) $0.50

Sponsor: Photographic Standards Board

Sulfuric Acid, Specification for Photographic Grade, PH4.101-1958 (Revision of Z38.8.101-1949) $0.35

Citric Acid, Monohydrate, Specification for Photographic Grade, PH4.102-1958 (Revision of Z38.8.102-1949) $0.35

Boric Acid, Crystalline, Specification for Photographic Grade, PH4.103-1958 (Revision of Z38.8.103-1949) $0.35

Hydrochloric Acid, Specification for Photographic Grade, PH4.104-1958 (Revision of Z38.8.104-1949) $0.35

Catechol, Specification for Photographic Grade, PH4.131-1958 (Revision of Z38.8.131-1948) $0.35

Formaldehyde, Specification for Photographic Grade, 37-Percent Solution, PH4.152-1958 (Revision of Z38.8.152-1949) $0.35

Sodium Sulfate, Anhydrous, Specification for Photographic Grade, PH4.175-1958 (Revision of Z38.8.175-1949) $0.35

Sodium Bisulfite, Anhydrous, Specification for Photographic Grade, PH4.276-1958 (Revision of Z38.8.276-1949) $0.35

Sponsor: Photographic Standards Board

AMERICAN STANDARDS UNDER WAY

Status as of November 17, 1958

Legend — Standards Council — *Approval by Standards Council is final approval as American Standard; usually requires 4 weeks.* Board of Review — *Acts for Standards Council and gives final approval as American Standard; action usually requires 2 weeks.* Standards Board — *Approves standards to send to Standards Council or Board of Review for final action; approval by standards boards usually takes 4 weeks.*

BUILDING AND CONSTRUCTION

American Standard Approved

Gypsum Wallboard Finishes, Specifications for, A97.1-1958 (Revision of A97.1-1953)

Sponsors: American Institute of Architects; Gypsum Association

CHEMICAL INDUSTRY

In Standards Board

Common Name for the Pest Control Chemical *O,O*-dimethyl *O*-(2,4,5-trichlorophenyl) phosphorothioate: ronnel, K62.18-

Sponsor: U. S. Department of Agriculture

ELECTRIC AND ELECTRONIC

American Standards Approved

Power Circuit Breaker Bushings, Electrical Characteristics of, and Power Circuit Breaker Bushings, Their Mountings, and Bushing Current Transformers, Dimensions of, C37.4a-1958 (Supplement to C37.4-1953)

Sponsor: Electrical Standards Board

Distribution, Power, and Regulating Transformers and Reactors Other Than Current-Limiting Reactors, Requirements, Terminology, and Test Code for, C57.12-1958 (Revision of C57.12-1956, including supplements C57.12c-1957, C57.12d-1957)

General, C57.12.00-1958

Transformers, 67,000 Volts and Below, 501 Through 10,000 kva, 3 Phase; 501 Through 5000 kva, 1 Phase, C57.12.10-1958

Overhead-Type Distribution Transformers, 67,000 Volts and Below, 500 kva and Smaller, C57.12.20-1958

Three-Phase Load-Tap-Changing Transformers, 67,000 Volts and Below, 1000 kva Through 10,000 kva, C57.12.30-1958

Terminology, C57.12.80-1958

Test Code, C57.12.90-1958

Sponsor: Electrical Standards Board

14-Watt T-12 Preheat Start Fluorescent Lamp, Dimensional and Electrical Characteristics of, C78.403-1958 (Revision of C78.403-1951)

15-Watt T-8 Preheat Start Fluorescent Lamp, Dimensional and Electrical Characteristics of, C78.404-1958 (Revision of C78.404-1951)

15-Watt T-12 Preheat Start Fluorescent Lamp, Dimensional and Electrical Characteristics of, C78.405-1958 (Revision of C78.405-1951)

20-Watt T-12 Preheat Start Fluorescent Lamp, Dimensional and Electrical Characteristics of, C78.406-1958 (Revision of C78.406-1955)

32-Watt T-10 12-Inch Circular Preheat-Start Fluorescent Lamp, Dimensional and Electrical Characteristics of, C78.413-1958 (Revision of C78.413-1951)

40-Watt T-10 16-Inch Circular Rapid-Start Fluorescent Lamp, Dimensional and Electrical Characteristics of, C78.415-1958

22-Watt T-9 8-Inch Circular Preheat-Start Fluorescent Lamp, Dimensional and Electrical Characteristics of, C78.416-1958

40-Watt T-12 Rapid Start Fluorescent Lamp, Dimensional and Electrical Characteristics of, C78.700-1958

96-Inch (800 ma) T-12 Rapid Start Fluorescent Lamp, Dimensional and Electrical Characteristics of, C78.702-1958

72-Inch T-12 Rapid Start (Recessed Double Contact) Fluorescent Lamp, Dimensional and Electrical Characteristics of, C78.703-1958

Sponsor: Electrical Standards Board

Glass Bulbs Intended for Use with Electron Tubes and Electric Lamps, Nomenclature for, C79.1-1958 (Revision of C79.1-1954)

Sponsor: Electrical Standards Board

In Standards Board

Rubber Insulating Tape, Specifications for, ASTM D 119-57T; ASA C59.6- (Revision of ASTM D 119-48T; ASA C59.6-1952)

Varnishes Used for Electrical Insulation, Methods of Testing, ASTM D 115-55; ASA C59.30-

Varnished Cotton Fabric and Varnished Cotton Fabric Tapes Used for Electrical Insulation, Methods of Testing, ASTM D 295-58; ASA C59.31-

Product Uniformity of Phenolic Laminated Sheets, Methods of Test for, ASTM D 634-44; ASA C59.32-

Dimensions of Rigid Tubes Used for Electrical Insulation, Methods of Measuring, ASTM D 668-52; ASA C59.33-

Dimensions of Rigid Rods Used in Electrical Insulation, Methods of Measuring, ASTM D 741-52; ASA C59.34-

Varnished Glass Fabrics and Varnished Glass Fabric Tapes Used for Electrical Insulation, Methods of Testing, ASTM D 902-56; ASA C59.35-

Silicone Insulating Varnishes, Methods of Testing, ASTM D 1346-57; ASA C59.36-

Ozone Resistant Rubber Insulating Tape, Specifications for, ASTM D 1373-57T; ASTM C59.37-

Silicone Varnished Glass Cloth and Tape for Electrical Insulation, Specifications for, ASTM D 1459-57T; ASA C59.38-

Sponsor: American Society for Testing Materials

Shockproof Cable Terminals and Receptacles for Use on X-Ray Equipment, Specification for, C86.1

Sponsors: National Electrical Manufacturers Association; General Services Administration

Reaffirmation Approved

Molded Glass Flares Intended for Use with Electron Tubes and Electric Lamps, Nomenclature for, C79.2-1954 (R 1958)

Sponsor: Electrical Standards Board

Standard Submitted

Automatic Circuit Reclosers and Line Sectionalizers, C37.22-

Sponsor: Electrical Standards Board

GAS-BURNING APPLIANCES

American Standard Approved

Relief and Automatic Shut-Off Valves for Use on Water Heating Systems, Listing Requirements for, Z21.22-1958 (Revision of Z21.22-1935)

Sponsor: American Gas Association

MATERIALS HANDLING

Standard Submitted

Loading Platforms at Freight Terminals and Warehouses, MH8.1-

Sponsor: American Trucking Association

MECHANICAL

American Standards Approved

Inserted Blade Milling Cutter Bodies, B5.23-1958

Driving and Spindle Ends for Portable Air and Electric Tools, B5.38-1958

Sponsors: American Society of Mechanical Engineers; National Machine Tool Builders' Association; Society of Automotive Engineers; Metal Cutting Tool Institute; American Society of Tool Engineers

Lock Washers, B27.1-1958 (Revision of B27.1-1950)

Sponsors: American Society of Mechanical Engineers; Society of Automotive Engineers

In Standards Board

Instrument Precision Ball Bearings, Requirements for, B3.10-

Evaluating Static and Dynamic Load Ratings for Ball and Roller Bearings, Method of, B3.11-

Sponsor: Mechanical Standards Board

Twist Drills, B5.12- (Revision of B5.12-1950)

Sponsors: American Society of Tool Engineers; Metal Cutting Tool Institute; National Machine Tool Builders' Association; Society of Automotive Engineers; American Society of Mechanical Engineers

Slotted and Recessed Head Wood Screws, B18.6.1- (Revision of B18.6.1-1956)

Sponsors: American Society of Mechanical Engineers; Society of Automotive Engineers

MISCELLANEOUS

In Board of Review

Guide for Quality Control, Z1.1- (Revision of Z1.1-1941)

Control Chart Method of Analyzing Data, Z1.2-(Revision of Z1.2-1941)

Control Chart Method of Controlling Quality During Production, Z1.3- (Revision of Z1.3-1942)

Sponsor: American Society for Quality Control

PETROLEUM PRODUCTS AND LUBRICANTS

In Board of Review

Flash Point by Pensky-Martens Closed Tester, ASTM D 93-58T; ASA Z11.7- (Revision of ASTM D 93-52; ASA Z11.7-1952)

Carbon Residue of Petroleum Products, Method of Test for, ASTM D 189-58; ASA Z11.25- (Revision of ASTM D 189-52; ASA Z11.25-1952)

Existent Gum in Fuels, ASTM D 381-58T; ASA Z11.36- (Revision of ASTM D 381-52T; ASA Z11.36-1953)

Knock Characteristics of Motor Fuels by Motor Method, ASTM D 357-58; ASA Z11.37- (Revision of ASTM D 357-56; ASA Z11.37-1956)

Vapor Pressure of Petroleum Products, ASTM D 323-58; ASA Z11.44- (Revision of ASTM D 323-56; ASA Z11.44-1956)

Carbon Residue of Petroleum Products, Ramsbottom Coking Method, ASTM D 524-58T; ASA Z11.47- (Revision of ASTM D 524-52T; ASA Z11.47-1952)

Neutralization Value by Potentiometric Titration, ASTM D 664-58; ASA Z11.59- (Revision of ASTM D 664-54; ASA Z11.59-1955)

Knock Characteristics of Motor Fuels by the Research Method, ASTM D 908-58; ASA Z11.69- (Revision of ASTM D 908-56; ASA Z11.69-1956)

Olefinic Plus Aromatic Hydrocarbons in Petroleum Distillates, ASTM D 1019-58T; ASA Z11.71- (Revision of ASTM D 1019-56T; ASA Z11.71-1956)

Apparent Viscosity of Lubricating Grease, ASTM D 1092-58T; ASA Z11.72- (Revision of ASTM D 1092-55; ASA Z11.72-1955)

Foaming Characteristics of Crankcase Oils, ASTM D 892-58T; ASA Z11.78- (Revision of ASTM D 892-46T; ASA Z11.78-1953)

Polarographic Determination of Tetraethyllead in Gasoline, Test for, ASTM D 1269-58; ASA Z11.98-

Effect of Copper on the Oxidation Rate of Grease, Test for, ASTM D 1402-58; ASA Z11.99-

Sponsor: American Society for Testing Materials

Reaffirmation Approved

Test Dropping Point of Grease, ASTM D 566-42; ASA Z11.51-1943 (R1958)

Sponsor: American Society for Testing Materials

PHOTOGRAPHY

In Board of Review

Front Lens Mounts for Cameras, Dimensions of, PH3.14 (Revision of PH3.14-1944)

Sponsor: Photographic Standards Board

Thiosulfate Content of Processed Black-and-White Photographic Film and Plates, Method for Determining the, PH4.8- (Revision of PH4.8-1953)

Radiographic Film Processing Tanks, Internal Dimensions for, PH4.17- (Revision of Z38.8.7-1946)

Photographic Filing Enclosures for Storing Processed Photographic Films, Plates, and Papers, PH4.20- (Revision of Z38.8.21-1950)

Photographic Grade Dry Mounting Tissue, Specification for, PH4.21-

Aluminum Potassium Sulfate, PH4.150- (Revision of Z38.8.150-1949)

Chromium Potassium Sulfate, PH4.151- (Revision of Z38.8.151-1949)

Potassium Persulfate, PH4.303- (Revision of Z38.8.181-1949)

Sponsor: Photographic Standards Board

In Standards Board

Motion-Picture Safety Film, PH22.31- (Revision of Z22.31-1946)

16mm Flutter Test Film, Magnetic Type, PH22.113-

Sponsor: Society of Motion Picture and Television Engineers

Withdrawal Being Considered

Photographic Grade Sodium Sulfide, Fused, Specification for, Z38.8.182-1949

Sponsor: Photographic Standards Board

PIPE AND FITTINGS

American Standard Approved

Gas Transmission and Distribution Piping Systems (Section 8 of the Code for Pressure Piping) B31.1.8-1958 (Revision of B31.1.8-1955)

Sponsor: American Society of Mechanical Engineers

SAFETY

Reaffirmation Being Considered

Safety Code for Mechanical Power Transmission Apparatus, B15.1- (Revision of B15.1-1953)

Sponsors: American Society of Mechanical Engineers; Association of Casualty and Surety Companies; International Association of Governmental Labor Officials

Safety Code for Forging and Hot Metal Stamping, B24.1- (Revision of B24.1-1952)

Sponsors: Drop Forging Association; National Safety Council, Inc

TEXTILES

In Standards Board

Cotton Yarns, Methods of Testing and Tolerances for, ASTM D 180-57T; ASA L14.13- (Revision of ASTM D 180-54T; ASA L14.13-1956)

Sewing Threads, Methods of Testing, ASTM D 204-57T; ASA L14.14- (Revision of ASTM D 204-42; ASA L14.14-1949)

Man-Made Staple Fibers, Methods of Testing, ASTM D 540-57T; ASA L14.33- (Revision of ASTM D 540-44; ASA L14.33-1949)

Felt, Methods of Testing, ASTM D 461-57T; ASA L14.52- (Revision of ASTM D 461-53; ASA L14.52-1955)

Spun and Filament Yarns Made Wholly or in Part of Man-Made Organic Base Fibers, Methods of Testing, ASTM D 1380-57T; ASA L14.90- (Revision of ASTM D 1380-56T; ASA L14.90-1957)

Sponsors: American Society for Testing Materials; American Association of Textile Chemists and Colorists

WOOD AND WOOD PRESERVATIVES

American Standards Approved

Testing Small Clear Specimens of Timber, ASTM D 143-52; ASA O4.1-1958 (Revision of ASTM D 143-27; ASA O4a-1927)

Establishing Structural Grades of Lumber, Methods for, ASTM D 245-57T; ASA O4.3-1958

Wood Poles, Methods of Static Tests of, ASTM D 1036-55T; ASA O4.4-1958

Definitions of Terms Relating to Timber, ASTM D 9-30; ASA O4.5-1958

Domestic Hardwoods and Softwoods, Nomenclature of, ASTM D 1165-52; ASA O4.6-1958

Round Timber Piles, Specifications for, ASTM D 25-55; ASA O6.1-1958 (Revision of ASTM D 25-37; ASA O6-1939)

Veneer, Plywood, and Other Glued Veneer Constructions, Methods of Testing, ASTM D 805-52; ASA O7.1-1958

Definitions of Terms Relating to Veneer and Plywood, ASTM D 1038-52; ASA O7.2-1958

Evaluating and Properties of Building Fiberboards, Methods of Test for, ASTM D 1037-56T; ASA O8.1-1958

Wooden Paving Blocks for Exposed Pavements, Specifications for, ASTM D 52-20; ASA O9.1-1958

Creosoted End-Grain Wood Block Flooring for Interior Use, Specifications for, ASTM D 1031-55; ASA O10.1-1958

Modified Wood, Specifications for, ASTM D 1324-57T; ASA O12.1-1958

Sponsor: American Society for Testing Materials

Reaffirmation Approved

Static Tests of Timbers in Structural Sizes, Methods of, ASTM D 198-27; ASA O4b-1927 (R 1958)

Sponsor: American Society for Testing Materials

WHAT'S NEW ON AMERICAN STANDARDS PROJECTS

Safety Code for Building Construction, A10—

Sponsors: National Safety Council; American Institute of Architects

At its meeting in New York November 7, the committee decided to revise the American Standard Safety Code for Building Construction, A10.2-1944. In order to be able to enlarge the standard to include highway and heavy construction, as well as building construction, those present also recommended that the scope of the committee be broadened to include all phases of construction—building, heavy, and highway. Subcommittees should then be formed to deal with the various technical aspects of the different phases of the construction industry, they recommended. The proposal to enlarge the committee's scope will be presented to the sponsors for consideration and possible submittal to the Safety Standards Board of ASA.

"The objective of the sectional committee is to develop a workable and enforceable code that can be adopted by safety authorities in all states of the Union," said Frank Boodro, the committee chairman. "At present, contractors working in different states, or even when working in different areas of one state, may find themselves subject to contradictory safety codes. This is confusing and costly. It would be of great advantage to all to be able to work under a uniform safety code in all sections of the country. The committee hopes to be able to develop a uniform code that is acceptable to all interested groups and authorities."

The committee will welcome suggestions from organizations and groups concerned with the scope of the committee's work, Mr Boodro said.

Mr Boodro, who is safety director of B. Perini and Sons, Inc, Framingham, Massachusetts, represents the National Safety Council on Sectional Committee A10.

Methods Covering the Application of Gypsum Wallboard, A97—

Sponsors: American Institute of Architects; Gypsum Association

Richard H. Faber, technical secretary of the Gypsum Association, has been elected secretary of Committee A97. Mr Faber, a graduate civil engineer (University of Illnois), has been in the construction industry for 10½ years and has been with the Gypsum Association for the past six years. In addition to serving as technical secretary of the Association, he is secretary of Sectional Committee A59 for Gypsum Concrete and secretary to ASTM Committee C-11 on Gypsum. He is the Gypsum Association's representative on ASA Sectional Committee A42, Specifications for Plastering, as well as on Committee A108, Installation of Ceramic Tile and ASTM Committees E-5 for Fire Testing, E-6 for Structural Testing and C-20, Acoustics.

Safety Code for Compressed Air Machinery and Equipment, B19—

Sponsor: American Society of Mechanical Engineers

In view of the fact that the scope of this committee now includes compressed gas as well as compressed air, the Safety Standards Board has approved a change in the committee's title to "Safety Standards for Compressor Systems, B19."

The present scope of the committee applies to natural gas compressors but liquids are excluded.

Safety Code for Mills and Calenders in the Rubber Industry, B28—

Sponsor: National Safety Council

Wesley M. Graff, manager of safety, fire and medical services for the United States Rubber Company, has been elected chairman of Committee B28. Mr Graff is well acquainted with safety problems in the rubber industry. Starting with U.S. Rubber in 1942, he first served as safety engineer in the Eau Claire, Wisconsin, plant, and later carried on the same type of work in the New York general offices. From 1945 until 1948 he served as safety director of the Detroit tire plant. He became assistant supervisor of safety

Wesley M. Graff

in 1950, with headquarters in New York, became supervisor the following year, and assumed additional responsibilities with his present title in 1952.

Mr Graff has been an active member of the executive committee of the National Safety Council's Rubber Section since 1946 and served as general chairman in 1955-56. He has been a member of several steering committees of the President's Conference on Occupational Safety, and is a member of the American Society of Safety Engineers and of the Health and Safety Committee of the National Association of Manufacturers. He prepared the material which is now the appendix of the American Standard Safety Code for Mills and Calenders in the Rubber Industry, B28.1-1949.

Small Tools and Machine Tool Elements, B5—

Sponsors: The American Society of Mechanical Engineers; American Society of Tool Engineers; National Machine Tool

Builders' Association; Metal Cutting Tool Institute; Society of Automotive Engineers

and

Diamond Abrasives, B74—

Sponsors: Industrial Diamond Association; Grinding Wheel Institute

New standards in the field of bonded abrasive products will be handled under project B74, Diamond Abrasives, instead of project B5, as small tools. This decision was made by the Mechanical Standards Board upon recommendation of a special committee set up by the Board. Action by the Board came as a result of requests for two new projects, one on bonded abrasive products proposed by the Grinding Wheel Institute, and another on carbide cutting tools proposed by the Cemented Carbide Producers Association.

In noting that there were some 30 subcommittees (ranging in size up to 40 members) operating under Sectional Committee B5, the special committee felt that some measures were necessary to relieve the tremendous administrative tasks that now must be handled to keep the project rolling. Recently, three B5 vice-chairmen had been appointed to assist the chairman in administration. It was also noted that there were a number of standards relating to carbide-tipped cutting tools which were developed in response to the expanding use of this type of tool since World War II. However, today the use of ceramics in cutting tools is growing and promises to duplicate the situation which now exists for carbide tools. With these factors in mind, the MeSB special committee felt that it was undesirable to pile on still further work by assigning the study of abrasives to B5. Instead, they proposed that the work be assigned to B74, Diamond Abrasives, with a suitable expansion of its scope and a review of the assignment of sponsors in view of the broadened scope.

Regarding the CCPA proposal for a project on carbide cutting tools, the special committee recommended, and the Board agreed, that this subject should remain in B5 because of the need to coordinate the work with other types of cutting tools. At the same time, the special committee envisioned the future need for dividing the work of B5 and proposed that this might be done by separating the small tools (reamers, taps, drills, etc) from the machine tools (spindle noses for lathes, chucks, accuracy of lathes, etc). This is similar to the division made in ISO work. The MeSB approved this recommendation in principle and asked the B5 sponsors and the sectional committee to study the matter and make a recommendation.

Code for the Identification of Gas Mask Canisters, K13—

Sponsor: National Safety Council

Before starting work to reexamine the color code for identification of gas mask canisters contained in American Standard K13.1-1950, a new chairman and secretary of the committee have taken office.

S. J. Pearce

S. J. Pearce, assistant chief, Branch of Health Research, U. S. Bureau of Mines, is the new chairman. Clinton H. Hoch, National Safety Council, is secretary.

Mr Pearce has been in charge of the Bureau of Mines' approval testing of respiratory protective devices (gas masks, supplied-air respirators, dispersoid respirators, and chemical cartridge respirators), since 1936.

Mr Hoch joined the National Safety Council in 1957 after working in Turkey and Brazil as safety engineer for the Paul Weir Company of Chicago. He is assigned as the Council's representative to the Mining, Coal Mining, and Cement Quarry and Mineral Aggregates Sections. He is a member of the National Mine Rescue Association, the Coal Mining Institute of America, and the Mine Inspectors Institute of America.

Concerning the work of the K13 committee, Mr Pearce says, the purpose of the committee is to reexamine the current color code and "to revise it so that colors can be assigned to new types of gas mask canisters on a logical basis."

Prevention or Control of Hazards to Children, Z66—

Sponsor: American Academy of Pediatrics

New chairman of Committee Z66 is Dr Edward Press, field director of the American Public Health Association, and chairman of the American Academy of Pediatrics Committee on Accidental Poisoning. Dr Press helped develop and was chairman of the first organized poison control center (Chicago, Illinois) and has recently completed two years as member of the Advisory Committee of the New York City Poison Control Center. He has served as a consultant in helping to develop poison control programs for state health departments and state medical and pediatric groups in Florida, Oklahoma, Texas, Iowa, Illinois, New York, and Connecticut.

Edward Press

Dr Press was regional medical director of the U. S. Children's Bureau (Chicago) from 1947 to 1950. From 1950 to 1955, he was associate director, University of Illinois Division of Services for Crippled Children and assistant professor of preventive medicine at the University of Illinois College of Medicine.

He is author of a book on "Accidental Poisoning in Childhood" published by the American Academy of Pediatrics.

A subcommittee of Z66 is now studying the American Standard Specifications to Minimize Hazards to Children from Residual Surface Coating Materials, Z66.1-1955, to determine whether it should be reaffirmed or revised.

NEW BOOKS

RECOMMENDED SAFE PRACTICES FOR INERT-GAS METAL-ARC WELDING. *AWS A6.1-58. American Welding Society, 33 West 39 Street, New York 18, N. Y.* $1.00. All known hazards peculiar to the inert-gas metal-arc process are covered in this standard with particular attention to the hazard of trichloroethylene when used in the vicinity of inert arc welding. Also included are data on carbon dioxide shielding and information on the ventilation requirements adequate to control this hazard.

RECOMMENDATIONS FOR STEAM TURBINES, PART I: SPECIFICATION. *IEC Publication 45. 1958. Second edition. International Electrotechnical Commission, Geneva, Switzerland. Copies available from ASA.* $3.20. This revision of the 1931 edition amends many items to cover modern equipment used to ensure greater safety and to prescribe permissible limit of pressure and temperature variation in modern plants. These recommendations apply to steam turbines for electric power station service although certain of the provisions can be applied to steam turbines for other services where suitable.

RECOMMENDATION FOR AN INTERNATIONAL SPECIFICATION FOR ALUMINIUM ALLOY CONDUCTOR WIRE OF THE ALUMINIUM-MAGNESIUM-SILICON TYPE. *IEC Publication 104. 1958. First edition. International Electrotechnical Commission, Geneva, Switzerland. Copies available from ASA.* $0.60. Prescribes the electrical resistivity, the tensile strength, and the elongation before stranding of aluminum alloy electrical conductor wire of the aluminum-magnesium-silicon type, containing approximately 0.5 percent silicon.

RULES FOR AUXILIARY MACHINES ON MOTOR VEHICLES (ELECTRIC MOTORS AND GENERATORS.) *IEC Publication 101. 1958. First edition. International Electrotechnical Commission, Geneva, Switzerland. Copies available from ASA.* $2.40. Rules given in this publication apply to the rotating electric machines providing the auxiliary power essential for operation of traction equipment on motor vehicles (a-c and d-c motors and generators) in electric traction systems. Included are electric motors driving compressors, fans, generators (for excitation, regulation, lighting), and generators coupled to these motors or driven by heat engines or appropriate mechanical devices. Individual tests of machines and tests on complete sets are given. The publication has been approved by the International Union of Railways.

BODY MEASUREMENTS FOR THE SIZING OF WOMEN'S PATTERNS AND APPAREL. *Commercial Standard CS215-58. 38 pp. United States Department of Commerce, Office of Technical Services. Copies available from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.* $0.30. This standard provides classifications, size designations, and body measurements for consistent sizing of women's ready-to-wear apparel (Misses', Women's, Junior's, and Half Sizes) for the guidance of those engaged in producing patterns and ready-to-wear garments. The measurements given in this standard are body, not garment, measurements.

UNIFICATION OF ENGINEERING DRAWING PRACTICES. *31 pp. Canadian Standards Association, Ottawa, Canada. Copies available from ASA.* $1.00. Proceedings of the American-British-Canadian conference held in Toronto, October, 1957 to unify the drawing practices of the inch-using and English-speaking countries. This document reports the proceedings of the conference as a matter of record and presents the recommendations to the Steering Committee in the hope that they will be embodied by the national standards bodies of the USA, the UK, and Canada in their respective national standards on engineering drawing practice.

American Standard Specifications for

Metal Drums and Pails

ASA Reg U S Pat Off
MH2.1-1958 through MH2.10-1958

UDC 621.798.1:669.14:389.63

Errata

1. In each of the ten standards (MH2.1 through MH2.10) subsection 1.1, General, cites the regulations which apply to each drum or pail. Delete all asterisks and asterisked references in subsections 1.1.

   (a) Change references to specific Interstate Commerce Commission regulations (MH2.1, MH2.3, MH2.4, MH2.5, MH2.6, MH2.9, and MH2.10) to include any supplements to the regulations that were in existence as of May 29, 1958, the date of the approval of the American Standards.

   These regulations are published by the Bureau of Explosives of the Association of American Railroads in Agent H. A. Campbell's Tariff No. 10 and Supplements thereto.

   (b) References to Freight Classifications (MH2.2, MH2.7, and MH2.8) are incomplete; these should read:

   Rule 40—Uniform Freight Classification 4
   Rule 40—Consolidated Freight Classification 21
   Rule 5—National Motor Freight Classification No. A-4
   Rule 5—National Motor Freight Classification No. 14
   and Supplements thereto as of May 29, 1958.

   Reference to Freight Classifications in subsection 1.1 of MH2.9 and MH2.10 should be deleted.

   Rule 40 is published by the Uniform Classification Committee and the Consolidated Classification Committee, agencies of the railroads; Rule 5 is published by the National Classification Board of the motor carrier industry.

2. Each of the ten standards contains a paragraph entitled "Embossing." This should read as follows:

   "The bottom head with manufacturer's marks shall be in accordance with the regulations given in subsection 1.1, as corrected in Errata of October 24, 1958."

   American Standard MH2.1 goes on to describe an embossed letter O in the drum head; this remains unaffected.

3. Editorial Corrections:

   MH2.2, page 7, subsection 3.1, line 9—change "These" to "There"
   MH2.10, page 15, title—change (ICC-37A) to (ICC-37A-80)
   page 15, subsection 3.1, line 5—change "head" to "bead"

October 24, 1958

STATEMENT REQUIRED BY THE ACT OF AUGUST 24, 1912, AS AMENDED BY THE ACTS OF MARCH 3, 1933, AND JULY 2, 1946 (Title 39, United States Code, Section 233) SHOWING THE OWNERSHIP, MANAGEMENT, AND CIRCULATION OF THE MAGAZINE OF STANDARDS, published monthly at New York, N. Y., for Oct. 1, 1958.

1. The names and addresses of the publisher, editor, managing editor, and business managers are: Publisher: American Standards Association, Incorporated, 70 East 45th Street, New York 17, N. Y.; Editor: Ruth E. Mason, 70 East 45th Street, New York 17, N. Y.; Managing editor: None; Business Manager: None.

2. The owner is: American Standards Association, Incorporated, 70 East 45th Street, New York 17, N. Y.; H. Thomas Hallowell, Jr., President; J. R. Townsend, Vice-President; G. F. Hussey, Jr., Managing Director and Secretary.

3. The known bondholders, mortgagees, and other security holders owning or holding one percent or more of total amount of bonds, mortgages, or other securities are: None.

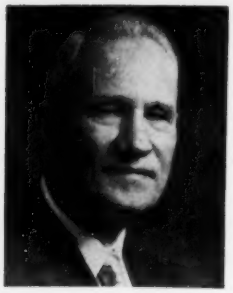
4. Paragraphs 2 and 3 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner.

5. The average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the 12 months preceding the date shown above was: (This information is required from daily, weekly, semiweekly, and triweekly newspapers only.)

G. F. Hussey, Jr.,
Managing Director

Sworn to and subscribed before me this 10th day of September, 1958.

Lydia I. Gustafsson
Notary Public, State of New York
Qualified in Westchester County
No. 60-1608150 3-27-57
Cert. filed with New York Co. Clerk
(My commission expires March 30, 1959.)



DINNSA

(Does Industry Need a National Standards Agency?)

by **Cyril Ainsworth**

Mr Ainsworth has served for many years as Technical Director of the American Standards Association. He is now Deputy Managing Director and Asst Secretary.

INTERNATIONAL STANDARDIZATION is a live subject, of growing significance and importance to the United States. As the authoritative channel for communication in international work, ASA therefore is the organization with which all who are interested in international standardization should be thoroughly familiar.

In no respect does ASA depart in this work from its basic principles or from its constitutional prohibition against the formulation of standards. Organizations in the United States concerned with international projects use ASA in international work in the same way that they use ASA machinery for the development and approval of "American Standards." The basic consensus principle of ASA is applied to international work in the same way as to national activities. All other fundamental principles on which ASA procedures are based are directly applied in international activities.

As a member of the International Organization for Standardization (ISO), ASA is notified of new proposals for international standardization. These, ASA sends to its member-bodies for their immediate attention. As in its national work, ASA takes steps to determine the position of the U.S. groups concerned. This is necessary in order that ASA, as a member of ISO, can vote for or against the proposal as the groups concerned wish. If the new project is initiated, ASA can also advise ISO as to the extent of participation desired by the United States groups.

Assuming that the U.S. groups have decided to participate in an ISO project, it is necessary that they be brought together in some formal manner in order that they can directly take part in the work through ASA in the prescribed manner. In a number of cases, a committee of a technical society, such as the American Society for Testing Materials, having been found to be truly representative of all the groups concerned, is requested to serve as an advisory committee to ASA in regard to the international project. The committee develops American opinions in regard to the work of the international project, selects delegates to attend meetings of the international committee, and advises ASA as to the action to be taken in behalf of the United States groups on approval of any draft ISO recommendations that may be developed.

Sometimes a national committee (sectional committee) organized under the procedures of ASA to develop national standards in the same field of work as that assigned to the new international committee is available as the national committee for the international project. Such a committee would handle all technical matters pertaining to American participation. ASA in this, as in all cases, national and international, functions on behalf of all by insuring that its principles and procedures have been followed in establishing the American position.

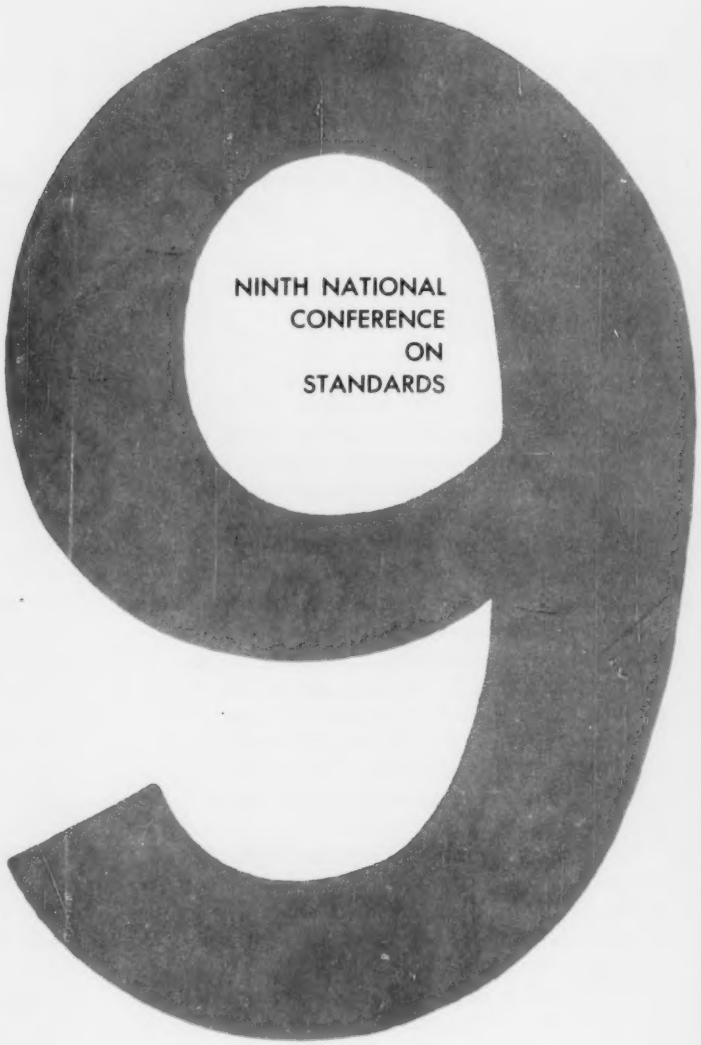
There are occasions when a sectional committee or a committee of a technical society is not available. In such cases ASA organizes an advisory committee representative of all groups concerned with the international proposal. Such a committee operates only in regard to the international subject, but in the same manner as outlined in the other cases.

From this condensed outline, it will be seen that the groups concerned make the decisions. The decisions are passed on to ASA as the channel for communication for transmittal to ISO. ASA is solely concerned with the method of arriving at the decisions and with the degree of support which the decisions have obtained. The only place where ASA takes direct action is in the Council of the ISO. Here, the representative of ASA operates on behalf of ISO as a whole, as do all members of ISO Council, to insure, in regard to any proposal, that the procedures of the ISO have been fully met. The representative therefore votes in accordance with his analysis of the actions taken under ISO operations and not in accordance with the wishes of the United States groups concerned. This parallels exactly the way in which the members of ASA standards boards and the Standards Council function in regard to national proposals.

As a member of ISO, ASA takes its place on the Council of ISO when elected by the membership. This Council administers all the work of ISO on behalf of all the member-bodies. It is not concerned with the technical content of proposed ISO recommendations presented for approval except to insure that no policies established by ISO governing the technical work have been violated. There have been and there will continue to be cases where the representative of ASA on the ISO Council will have to vote for the approval of a proposed ISO recommendation which has been opposed by the United States but which has obtained a sufficient number of affirmative votes of other member countries to meet the procedural requirements of ISO. Members of ASA's Standards Council and standards boards find themselves in similar positions from time to time in considering approval of a proposed "American Standard."

STANDARDIZATION—WHAT'S IN IT FOR ME?

PROCEEDINGS



AN INVALUABLE RECORD FOR PRACTICAL STANDARDS MEN — A GUIDE TO COST SAVINGS THROUGH STANDARDIZATION

An unusual number of excellent papers on the practical and financial benefits from standardization was offered at the Ninth National Conference on Standards, held in New York, November 18-20, 1958. All those who did not attend the conference can share in the valuable information by ordering a copy of the proceedings. Those who did attend the conference may want to order extra copies of the proceedings to forward to professional and business friends.

ADVANCE OFFER!

HIGHLIGHTS OF INFORMATION

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